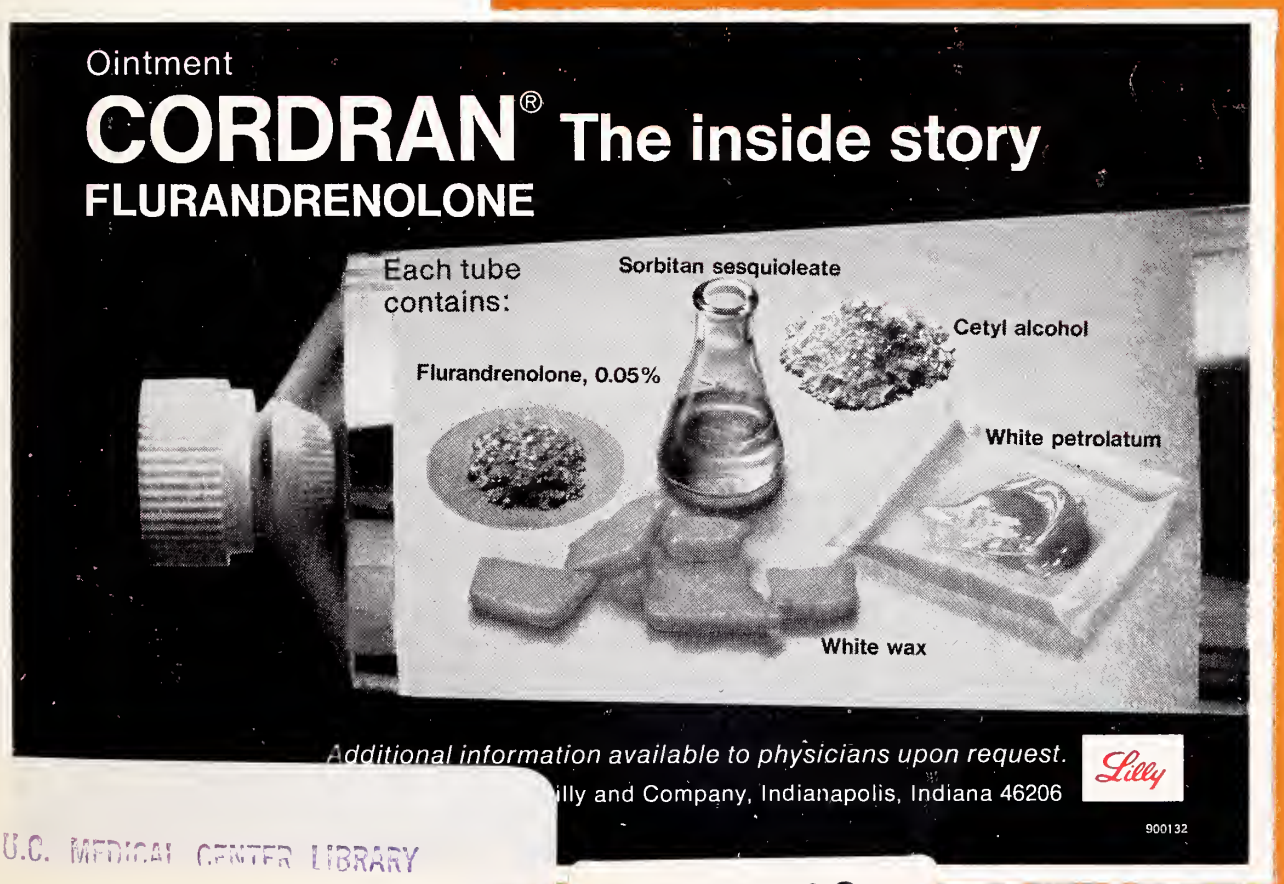
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The JOURNAL of The IOWA MEDICAL SOCIETY

IN THIS ISSUE:

- Iowa's Role in the Third National Cancer Survey—Joseph A. Buckwalter, M.D., and Brian L. Harvey, M.S.
- Modern Cultism—H. Doyl Taylor, LL.B.
- The Phenylketonuria Controversy 1968—Charles F. Johnson, M.D.
- Why Intelligent Young People Take Drugs—Graham B. Blaine, Jr., M.D.
- The Treatment of the Anxious Patient—R. Paul Penningroth, M.D., and Garfield Tourney, M.D.



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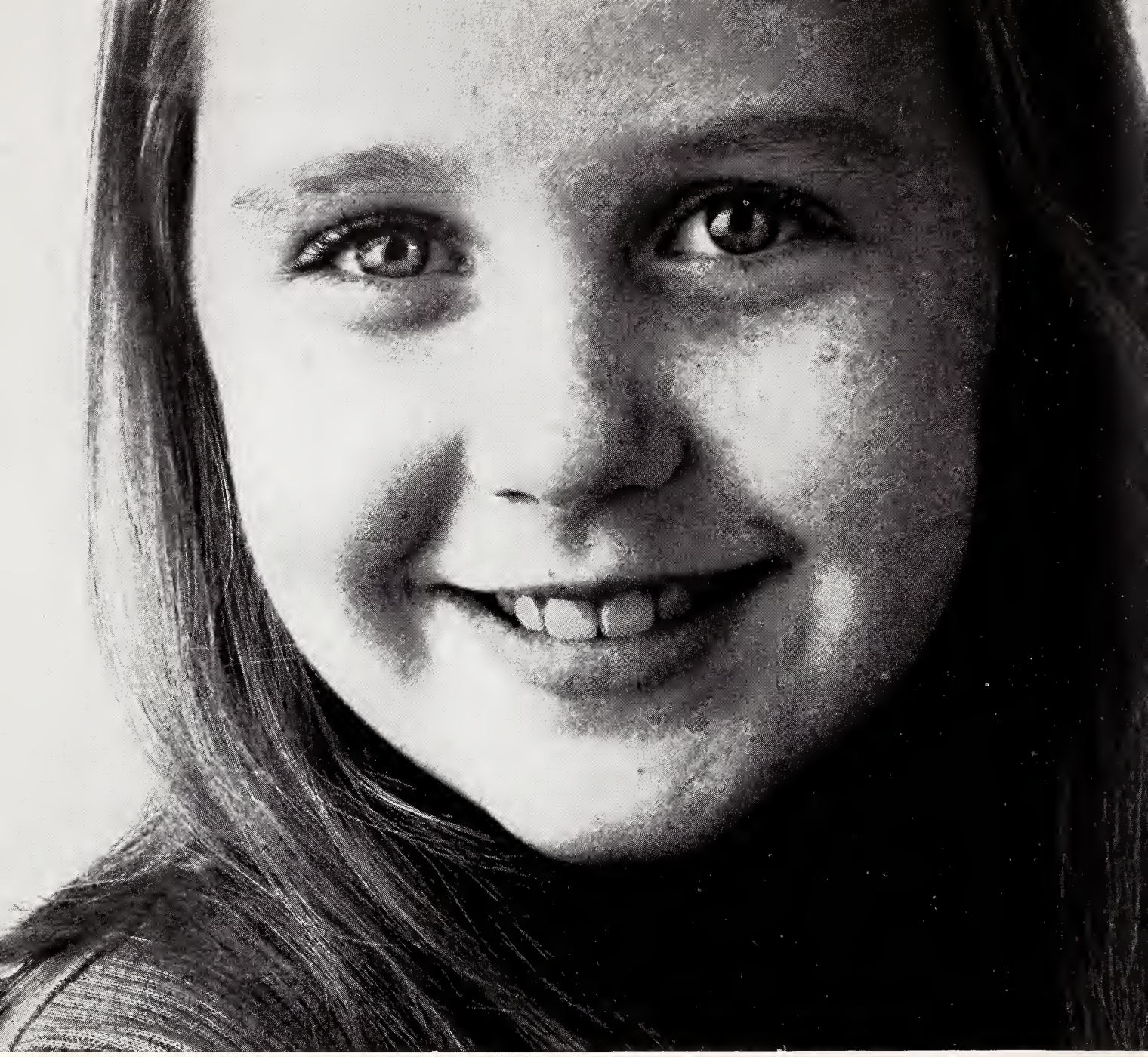


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Warnings: Acute anaphylaxis (may prove fatal unless promptly controlled) is rare but more frequent in patients with previous penicillin sensitivity, bronchial asthma or other allergies. Resuscitative (epinephrine, aminophylline, pressor amines) and supportive (antihistamines, methylprednisolone sodium succinate) drugs should be readily available. Other rare hypersensitivity reactions include nephropathy, hemolytic anemia, leucopenia and thrombocytopenia. In suspected hypersensitivity, evaluation of renal and hematopoietic systems is recommended.
Precautions: In suspected staphylococcal infections, perform proper laboratory studies including sensitivity tests. If overgrowth of nonsusceptible organisms occurs (constant observation is essential), discontinue penicillin and take appropriate measures. Whenever allergic reactions occur, withdraw penicillin unless condition being treated is considered life threatening and amenable only to penicillin. Penicillin may delay or prevent appearance of primary syphilitic lesions. Gonorrhea patients suspected of concurrent syphilis should be tested serologically for at least 3 months. When lesions of primary syphilis are suspected, dark-field examination should precede use of penicillin. Treat beta-hemolytic streptococcal infections with full therapeutic dosage for at least 10 days to prevent rheumatic fever or glomerulonephritis. In staphylococcal infections, perform surgery as indicated.
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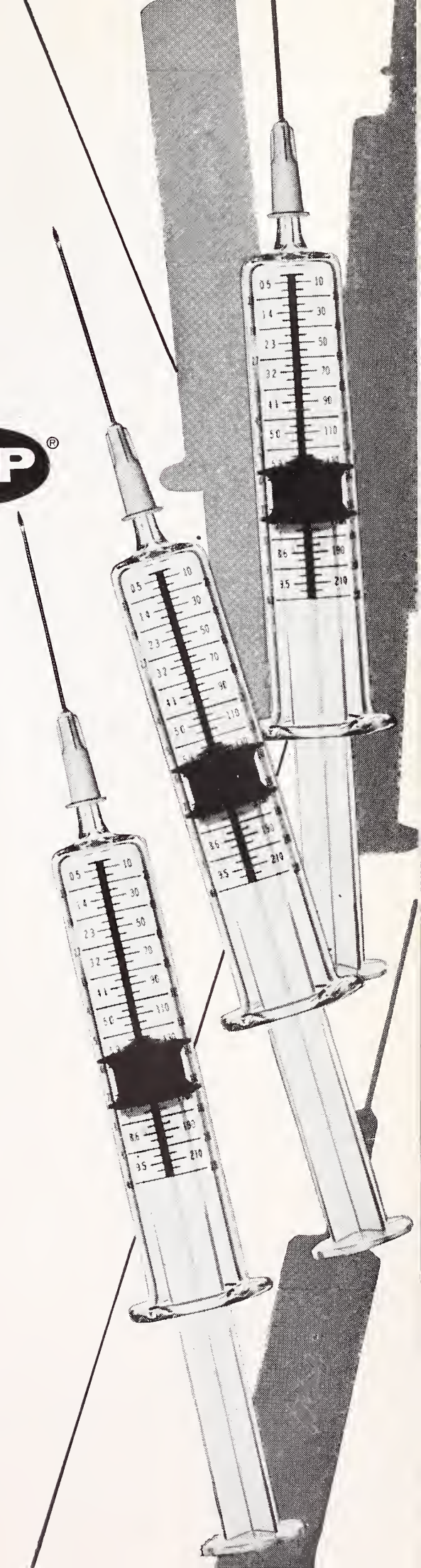
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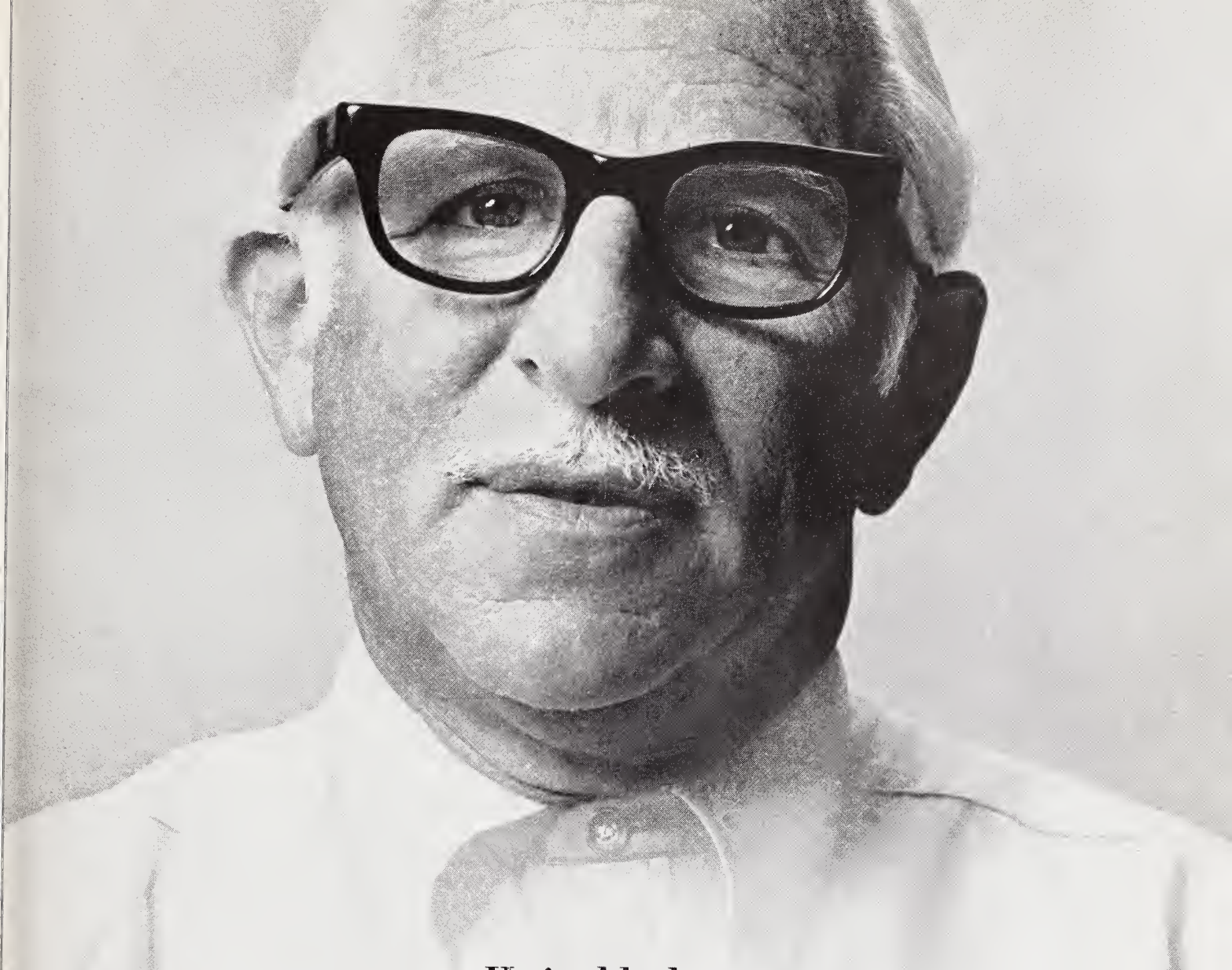
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Warning: In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated, and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort. Necessary subsequent courses of treatment with tetracyclines should be carefully observed.

Precautions: Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken.

In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

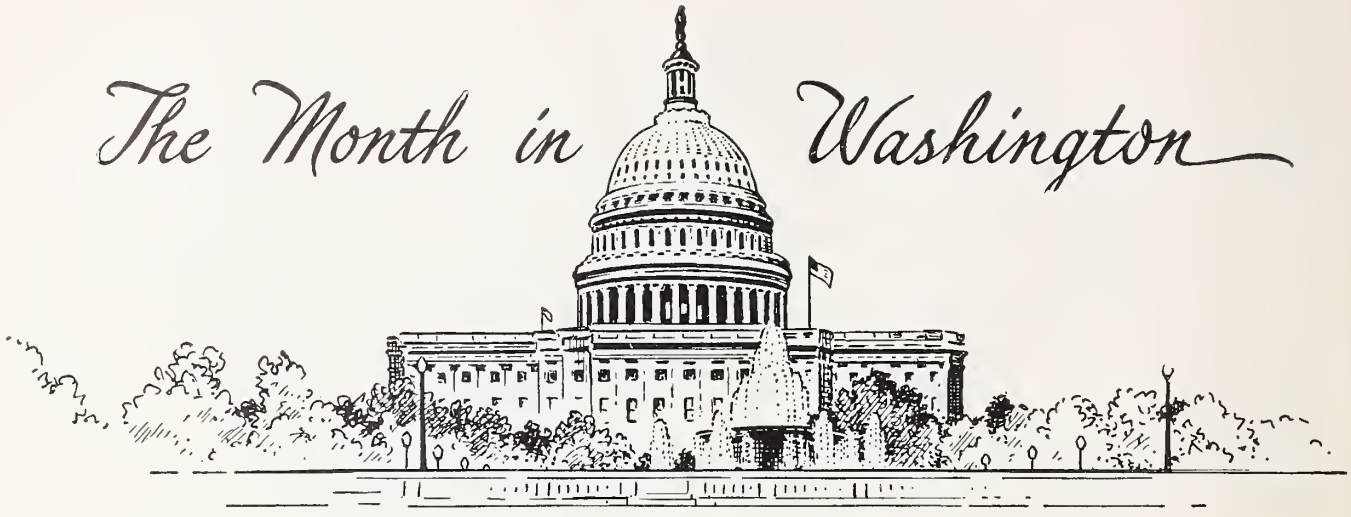
Side Effects: Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes; a rare case of exfoliative dermatitis has been reported. Photosensitivity; onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose related. Transient increase in urinary output, sometimes accompanied by thirst (rare). Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth—dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products. Treatment of streptococcal infections should continue for 10 days, even though symptoms have subsided.

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Washington, D. C.—The incoming Administration work on a health program was started with President-elect Richard Nixon's appointment of John Dunlop, a Harvard University professor, to head a special task force. Mr. Dunlop, 54, is a prominent economist and an expert in the manpower field. He has been a frequent adviser to the federal government since 1948.

In a letter to employes of the Department of Health, Education and Welfare, Secretary Wilbur J. Cohen, who will return to teaching at the University of Michigan, listed 13 health goals for the 1970's. He previously had said that his teaching position would leave him time to work for new and expanded health programs.

Most of the goals are non-controversial, and Cohen did not elaborate on details of implementation where controversy arises. The goals:

—Continued expansion of medical research and more rapid dissemination of new knowledge to prevent and cure illness.

—Elimination of economic barriers to medical care, through comprehensive health insurance and other public and private programs.

—Major reduction in infant mortality and early childhood diseases.

—Elimination of malnutrition.

—Improvement in the organization and delivery of medical care, with continued emphasis on high quality.

—Widespread transplantation of human organs and development of artificial organs.

—Expanded prevention and improved chances of recovery from heart disease, stroke and cancer.

—Increase of health manpower and better use of professional skills.

—Elimination of large mental institutions and expansion of community mental health centers accessible to all.

—Family planning services available to everyone.

—Improvement in the quality of the environment, with major reduction in air and water pollution.

—Reduction of alcoholism, drug addiction, mental illness and mental retardation, and accidents.

—Elimination of smallpox, diphtheria, polio, whooping cough and measles.

* * *

Developments in the drug field include starts on tests of an old drug in the treatment of pneumonia and a new one for Parkinson's disease.

The National Institutes of Health started a widespread test of a polyvalent pneumococcal vaccine that was discarded 20 years ago at the advent of antibiotics. Edwin M. Lerner, M.D., coordinator of the test program, said it had been demonstrated that persons die of pneumonia because of early-stage damage, and that antibiotics have not been a cure-all. The old vaccine, manufactured by E. R. Squibb and Sons, was licensed and found effective in 1948, but was taken off the market in 1952 because of lack of sales. "Penicillin was the cure-all in those days," Dr. Lerner said. "It was felt that there was no need to vaccinate people. After all, we thought we could cure them."

The Public Health Service announced a program to test an experimental drug in the treatment of Parkinson's disease. Robert Q. Marston, M.D., director of the National Institutes of Health, said the drug, L-DOPA, may help "up to 75 per cent of patients." But he cautioned it has "serious and unpleasant side effects" which must be carefully checked.

Other developments in the drug field included:

—The Pharmaceutical Manufacturers Association disputed the finding of an HEW Task Force on Drugs that a $41.7 million saving could have been obtained through the use of generic instead of brand name products in 67 of the 409 prescrip-

tion drugs used most often by elderly persons. Mr. C. Joseph Stetler, the PMA president, said the claim was not documented and was based "on the unproven assumption that prescriptions written by generic name cost substantially less."

—A Food and Drug Administration Advisory Committee said that existing data on whether birth control pills can cause cancer of the cervix are still inconclusive. The Advisory Committee on Obstetrics and Gynecology repeated the recommendation of the World Health Organization that all women using birth control pills undergo six-to-12-month medical examinations.

—The government has drawn up a national drug system to permit computerized processing of drug data. The code is designed to provide the needed common language in which to communicate essential information about drugs rapidly and accurately. The code was drawn up by HEW and the Drug Trade Conference, which represents drug manufacturers and distributors.

Regional Medical Programs, a majority involving continuing education of physicians, are now underway in 24 areas, with 261 separate projects being carried out, according to a government report.

Thirty-one regions have not yet embarked on specific programs.

The states and regions with the most listed projects to date are Tennessee (mid-South), 27; Missouri, 25; Texas, 24; South Carolina, 16; Intermountain (Utah, Wyoming, Montana, Idaho, Nevada), 16; Michigan, 15; Georgia, 14; Kansas, 14; Washington-Alaska, 4; Albany (N. Y.), 10; Memphis (Tenn.), 10; California, 9; Rochester, (N. Y.), 9; and, Oregon, 7.

* * *

The nation's largest mental institution, Saint Elizabeth Hospital, Washington, D. C., will be converted to a model of modern mental health services, training and research by the National Institute of Mental Health. The National Center for Mental Health Services, training, and research will be headed by Sherman N. Kieffer, M.D., Assistant Surgeon General of the Public Health Service.

The new national center will have three divisions. One is the Saint Elizabeth Hospital—Division of Clinical and Community Services. In collaboration with the D. C. Department of Health, this division will operate the area D Community Mental Health Center which includes much of southeast Washington. It will also provide active treatment, care and rehabilitation services for the beneficiaries of Saint Elizabeth Hospital.

A division of intramural training will administer an expanded institute program to train new types of auxiliary mental health manpower and to test new training techniques.

The third division will be responsible for the development of new approaches in clinical research.

* * *

A deadly brain and skull defect was found in four of 14 aborted fetuses whose mothers had used LSD, a George Washington University geneticist reported. Dr. Cecil B. Jacobson, reporting at a District of Columbia Medical Society meeting, said he also found "moderate" to "severe" flaws in the chromosomes of "at least 50 per cent" of 75 female LSD users. The flaws were in genetic material and could impair offspring, he said.

Dr. Jacobson and his associates said they found their subjects by advertising in an underground newspaper for pregnant LSD users, "No Questions Asked." Among the group he has studied, he said, there were 22 normal births and 35 abortions, only 14 of which produced fetuses intact enough for study.

Four of the 14 had a disease called "exencephaly" which normally shows in less than one-half of one per cent of babies. It is fatal, he said. One characteristic is that the brain is outside the skull.

Eighty per cent of the women studied were unmarried, Jacobson's aides said. Some had taken as little as one dose of LSD, and others had taken it numerous times.

* * *

Man is threatened with self-destruction because he has damaged, ignored and contaminated "the earth that gives him life," according to a federal government official. Charles C. Johnson, Jr., administrator of the newly created Consumer Protection and Environmental Health Service in the Department of Health, Education and Welfare, said the threat—from pollution, unsafe food, drugs, water and chemical additives to food, among other things—is increasing each year.

Mr. Johnson spoke at a symposium on human ecology. Ecology is the branch of science dealing with the relationship between people and their environment. "With regard to the physical environment, we have reached, or at the very least are rapidly approaching, a critical point," he told the gathering of scientists, lawyers, sociologists, engineers and other specialists.

"Every year, pollution gets worse, rather than better; the threat from unsafe food, drugs, water and a variety of consumer products is increasing; the quality of American life, particularly urban life, is deteriorating in a morass of environmental problems so complex as to appear almost beyond remedy," he said.



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COMING MEETINGS

IN STATE

Jan. 16 — **Iowa Obstetrical and Gynecological Society,** Iowa City.

Jan. 30 — **Nursing and the Iowa Heart Association (for registered nurses).** Hotel Ft. Des Moines, Des Moines.

Feb. 11-14 — **Refresher Course for General Practitioner,** U. of I. College of Medicine, Iowa City.

CONTINENTAL U. S.

Jan. 12 — **Crisis Recognition and Treatment,** University of Colorado School of Medicine, Denver.

Jan. 12-17 — **Annual Meeting, Society of Cryosurgery,** Hilton Plaza, Miami Beach.

Jan. 13-18 — **General Practice Review,** University of Colorado School of Medicine, Denver.

Jan. 16-18 — **Colorado Regional Meeting, American College of Physicians,** Broadmoor, Colorado Springs.

Jan. 17-18 — **American Society for Surgery of the Hand,** Americana, New York.

Jan. 17-18 — **Basic Review of Electrocardiography sponsored by University of Nebraska College of Medicine,** Omaha.

Jan. 18-23 — **American Academy of Orthopaedic Surgeons,** Americana Hotel, New York.

Jan. 20-24 — **Internist and Total Cancer Care sponsored by American College of Physicians,** McGregor Memorial Center, Wayne State University, Detroit.

Jan. 22-24 — **Diabetes in Review: Clinical Conference 1969 sponsored by American Diabetes Association in cooperation with University of Colorado Medical Center and Colorado Diabetes Association,** Denver-Hilton, Denver.

Jan. 23-25 — **Southern Society for Clinical Investigation,** Jung Hotel, New Orleans.

Jan. 23-25 — **Third Annual Radiotherapy Symposium,** Sheraton-Four Ambassadors Hotel, Miami.

Jan. 23 — **Diagnostic Significance of Acute and Chronic Gastrointestinal Blood Loss,** University of Nebraska Medical Center, Omaha.

Jan. 26-29 — **Society of Thoracic Surgeons,** Hilton Inn, San Diego.

Jan. 27-29 — **33rd Annual Session of International Medical Assembly of Southwest Texas,** San Antonio Convention Center, San Antonio.

Jan. 31-Feb. 2 — **13th Annual Southern Radiological Conference,** Grand Hotel, Point Clear, Alabama.

Jan. 30-31 — **Conference on Comprehensive Services in Long Term Care sponsored by National League for Nursing,** Hotel Commodore, New York City.

Feb. 3-5 — **Institute on Disaster Planning sponsored by California Hospital Association of Western Hospitals.** Beverly Hilton Hotel, Beverly Hills.

Feb. 3-5 — **American College of Surgeons, Sectional Meeting,** Sheraton-Fontenelle Hotel, Omaha.

Feb. 3-7 — **Postgraduate Course on High Risk Infant Care sponsored by University of Colorado School of Medicine,** Denver.

Feb. 5-7 — **Annual Meeting of American Academy of Occupational Medicine,** Sheraton-Plaza, Boston.

Feb. 8 — **Regional Meeting of Illinois Internists sponsored by American College of Physicians,** St. Nicholas Hotel, Springfield.

Feb. 10-11 — **Common Problems and Management of the Newborn,** University of Nebraska Medical Center, Omaha.

Feb. 13-15 — **Society of University Surgeons,** Hotel Fontainebleau, Miami Beach.

Feb. 17 — **Postgraduate Course on Cardiac Resuscitation,** University of Nebraska College of Medicine, Omaha.

Feb. 17-19 — **Closed Chest Cardiac Resuscitation,** University of Nebraska College of Medicine, Omaha.

Feb. 17-20 — **Postgraduate Course in Surgery of the Hand sponsored by University of Colorado School of Medicine,** Denver.

Feb. 18-22 — **American College of Radiology,** Regency Hyatt House, Atlanta.

Feb. 19-22 — **Advances in Infectious Disease and Immunology sponsored by American College of Physicians,** Baylor University College of Medicine, Houston.

Feb. 20-22 — **Central Surgical Association,** Drake Hotel, Chicago.

Feb. 21 — **Kansas Regional Meeting sponsored by American College of Physicians,** University of Kansas Medical Center, Kansas City, Kansas.

Feb. 21-22 — **Postgraduate Course in Gastroenterology sponsored by Good Samaritan Hospital and Veterans Administration Hospital in Phoenix,** Del Webb Towne House, Phoenix.

Feb. 24-25 — **Postgraduate Course on Aging and Arteriosclerosis,** University of Nebraska College of Medicine, Omaha.

Feb. 24-26 — **1969 Atlanta Graduate Medical Assembly sponsored by Fulton County Medical Society,** Regency Hyatt House, Atlanta.

Feb. 24-26 — **Sectional Meeting, American College of Surgeons,** Brown Hotel, Louisville, Kentucky.

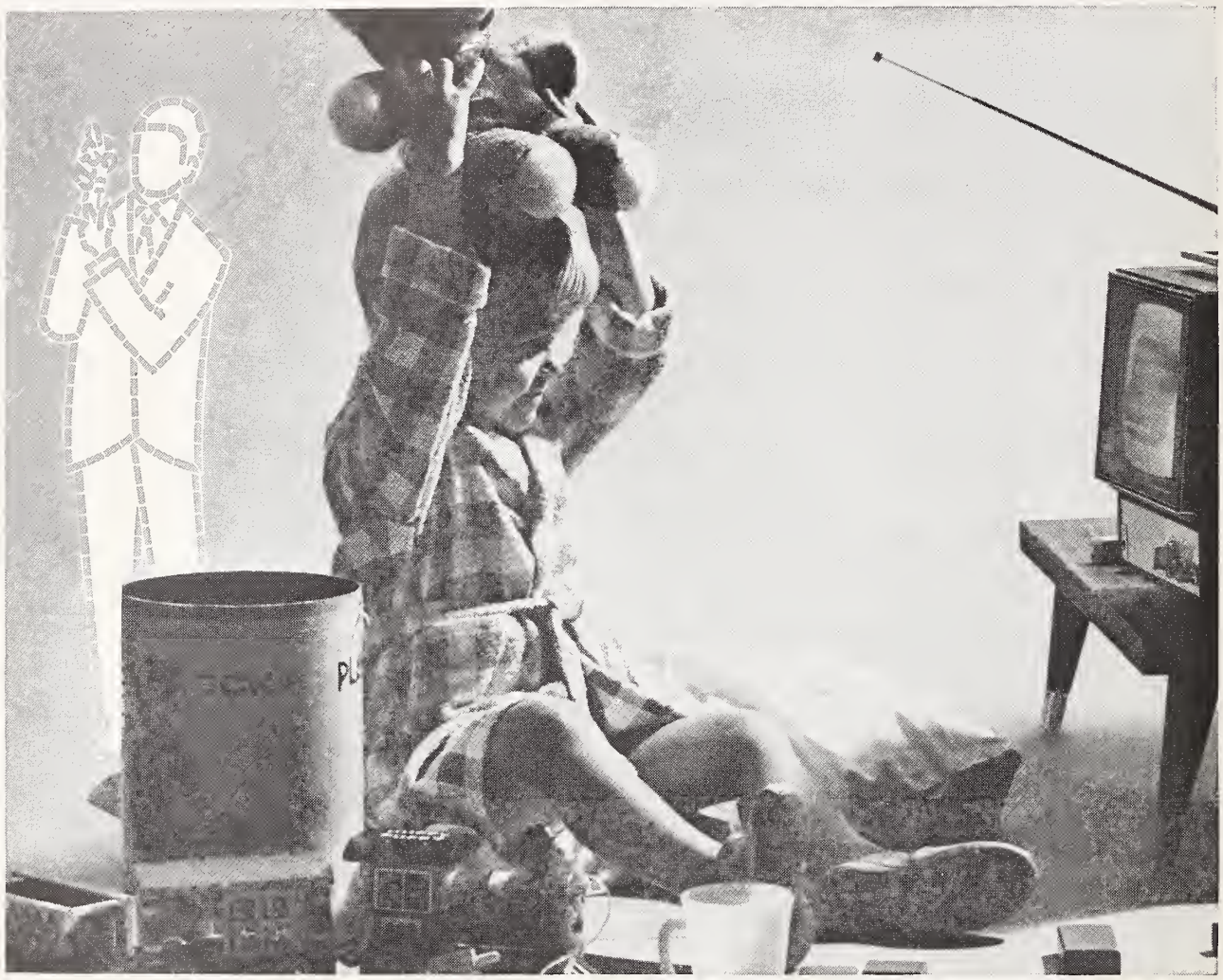
Feb. 26-Mar. 2 — **American College of Cardiology,** New York Hilton, New York.

ABROAD

Jan. 18-20 — **1st National Congress on Diabetes,** Madras, India.

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Contraindication: Penicillin hypersensitivity.

Warnings: In rare instances, penicillin may cause acute anaphylaxis which may prove fatal unless promptly controlled. This type of reaction appears more frequently in patients with a history of sensitivity reactions to penicillin or with bronchial asthma or other allergies. Resuscitative drugs should be readily available. These include epinephrine and pressor drugs (as well as oxygen for inhalation) for immediate allergic manifestations and antihistamines and corticosteroids for delayed effects.

Precautions: Use cautiously, if at all, in a patient with a strongly positive history of allergy.

In prolonged therapy with penicillin, and particularly with high parenteral dosage schedules, frequent evaluation of the renal and hematopoietic systems is recommended.

In suspected staphylococcus infections, proper laboratory studies (including sensitivity tests) should be performed.

The use of penicillin may be associated with the overgrowth of penicillin-insensitive organisms. In such cases, discontinue administration and take appropriate measures.

Adverse Reactions: Although serious allergic reactions are much less common with oral penicillin than with intramuscular forms, manifestations of penicillin allergy may occur.

Penicillin is a substance of low toxicity, but it possesses a significant index of sensitization. The following hypersensitivity reactions have been reported: skin rashes ranging from maculopapular eruptions to exfoliative dermatitis; urticaria; and reactions resembling serum sickness, including chills, fever, edema, arthralgia, and prostration. Severe and often fatal anaphylaxis has occurred (see Warnings). Hemolytic anemia, leukopenia, thrombocytopenia, and nephropathy are rarely observed side-effects and are usually associated with high parenteral dosage.

Administration and Dosage: Usual dosage range, 125 mg. (200,000 units) three times a day to 500 mg. (800,000 units) every four hours. For infants, 50 mg. per Kg. per day divided into three doses.

See package literature for detailed dosage instructions for prophylaxis of streptococcus infections, surgery, gonorrhea, and severe infections.

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Lilly

Iowa's Role in the Third National Cancer Survey

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Iowa City

Iowa, Colorado and Puerto Rico and the metropolitan areas of Pittsburgh, Dallas-Fort Worth, Philadelphia, San Francisco-Oakland, Birmingham, Minneapolis-St. Paul, Detroit and Atlanta are to be included in the Third National Cancer Survey. These areas have a 1970 projected population of more than 25 million. More than 250,000 new cases of cancer will occur there during the three years of the survey, 1969-71.

In 1947-48 Iowa participated in the similar, less sophisticated Second National Cancer Survey.[1, 2] The Iowa findings from that survey provided the most extensive and reliable information concerning cancer in a rural population ever reported. The physicians and hospital personnel of our state, whose efforts made the 1947-48 survey possible, have received recognition from cancer epidemiologists throughout the world for their important contribution to the understanding of cancer.

Because of the striking changes which have occurred in the environment, incidence, diagnosis, treatment and mortality of cancer during the past 20 years, the findings of the 1947-48 survey are now out of date, and it is of particular importance to update the Iowa findings.

Iowa's participation in the Third National Cancer Survey has been endorsed by the Iowa State Medical Society, the Iowa Hospital Association, the Iowa Chapter of the American Academy of General Practice, the Iowa State Health Department and the American Cancer Society, Iowa Division, Inc. The National Cancer Institute will provide the financial support.

Dr. Buckwalter is director of the Iowa Central Tumor Registry and a professor of surgery at the U. of I. College of Medicine. Mr. Harvey is associate director of the Central Tumor Registry, director of the Cancer Survey, and an instructor in surgery at the U. of I.

OBJECTIVES AND PLANS

The principal objective of the survey is to obtain information concerning the incidence and the prevalence of the various kinds of cancer. The information collected will relate to demography, age, sex, marital status, primary site, histologic type of the cancer, method of diagnosis and treatment. In most of the other geographic areas of the survey, information concerning the social and economic impact of cancer will also be collected. That will be done by interviewing 10 per cent of the cancer patients or members of their families. However *no patients* will be interviewed and *no information* will be collected concerning the economic or social impact of cancer in Iowa.

It is anticipated that the Iowa findings will be among the most interesting and important of the survey. Comparisons between the findings of the 1947-48 survey and those of the current survey will be provocative and will provide further valuable insights concerning the epidemiology of cancer in our population.

One aim of the survey in Iowa is to obtain reliable information concerning the incidence and prevalence of skin cancer. Since most of the patients with such cancers are not admitted to hospitals, hospital tumor registry data will not be so important as the data obtained from the physicians who care for patients with these lesions in their offices. The findings of the 1947-48 survey in Iowa showed the incidence of skin cancer to be about the same in Iowa as in the ten urban areas included in that survey. That was a rather surprising discovery in view of the generally accepted concept that exposure to sun is one of the most important factors in the etiology of these neoplasms. Even more surprising was the finding that the incidence of skin cancer was substantially higher in urban than in rural Iowa. The discrepancies between these findings and what had been expected might be ascribed to incomplete case-finding in the rural, as compared with the

urban areas of Iowa. On the other hand, the findings could accurately have reflected the incidences of those lesions. The results of the 1969-71 survey should answer this question.

In planning for the 1969-71 survey, procedures have been devised to achieve complete cancer case finding. To a large measure the success of the survey will be directly related to our ability to identify each new case of cancer which occurs in Iowa during the three years of the survey. Every effort has been made to make these procedures as simple and efficient as possible, in order to minimize the effort which will be required of physicians and hospital staffs. However, as was true of the 1947-48 survey, the worth of the 1969-71 survey will be determined finally by the level of interest and assistance provided by the physicians and hospitals throughout the state. As the survey progresses, it is anticipated that changes in procedures may be necessary. The director hopes that suggestions and constructive criticism will be forthcoming at all times.

Besides providing current demographic and epidemiologic information concerning cancer that will be useful to physicians and others concerned with the care of cancer patients, the survey findings will be valuable to them in planning treatment and care facilities. The information collected will be made available to the Iowa Medical Society, the Iowa Hospital Association and others charged with the responsibility for organizing and planning for medical care in our state.

IMPLEMENTATION

The Iowa Central Tumor Registry, organized in 1965, assists hospital cancer programs with the collection, storage, retrieval, analysis and interpretation of their cancer patient information. The Central Registry assists hospitals that don't yet have cancer programs to organize and develop such programs. In two previous communications the Central Registry program has been described.[3, 4]

The Third National Cancer Survey in Iowa will be implemented by the Iowa Central Tumor Registry. Mr. Brian L. Harvey, associate director and biostatistician of the Central Registry, will direct the survey in Iowa. A contract has been negotiated with the National Cancer Institute outlining the conditions for implementing the survey, and providing for its fiscal support. The Central Registry staff will be responsible for the collecting and preliminary processing of the cancer information.

COLLECTION OF HOSPITAL CANCER DATA

At the time this is written, 45 Iowa hospitals are actively participating in the Iowa Central Tumor Registry program, and are developing cancer programs or are organizing them. Most of the larger hospitals are included. More than 75 per cent of the new cancer patients in Iowa are admitted to the hospitals which participate in the Central Registry's program. Since the data required for the cancer survey are substantially the same as those already being collected by hospitals participating in the Central Registry, no significant changes will be required in the procedures presently used for collecting their data. However, since squamous and basal-cell skin cancers have not been previously reported, these neoplasms will be added to the list of malignancies to be reported.

The interest and assistance of the personnel of all other Iowa hospitals—those not participating in the Iowa Central Tumor Registry program—have been solicited through communications from the Iowa Hospital Association and the Central Registry. Participation by these hospitals will take two forms: (1) Each hospital will be provided copies of a printed form (Figure 1) on which to record the necessary information about all in- and out-patients with a diagnosis of cancer who have been seen each month. At the end of the month the form, which carries our return address and postage, is to be folded, sealed and mailed. (2) After a sufficient number of cancer patients have been reported by a hospital, our field worker will arrange to visit that hospital for the purpose of abstracting the medical record of each patient who has been reported. The medical information which the field worker will abstract will be the same as that abstracted by the hospitals participating in the Central Registry program.

The legality of the transmission of medical information from local hospitals to the Central Tumor Registry has been established by a ruling of the Attorney General of Iowa. All the medical information obtained will be treated as confidential. A copy of the Attorney Gen-

MONTHLY HOSPITAL CANCER PATIENT LIST
National Cancer Survey

Please record the names and other requested information of all in and out patients with cancer seen at your hospital during this month. If no cancer patients are seen, indicate this on the form. On the last day of the month, fold, seal and mail form.

Patient Name Surname First Middle	Hosp. Number	Date Admitted	Cancer Diagnosis	Hospital to which Patient referred	Date Referred
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					

Figure 1. Form which will be supplied to hospitals for each month of the survey, for recording the names of their cancer patients and the indicated information. The form, which carries a return address and postage on the reverse side, is to be folded and mailed on the last day of the month.

NATIONAL CANCER SURVEY IOWA PHYSICIAN CANCER PATIENT LIST

Dear Doctor: Please list below all cancer patients you see January 1st to April 1st, 1969. On or about April 1st, 1969, please fold and mail this form. If you see no cancer patients during these three months, please indicate this on the form and mail.

Patient Surname First Middle	Date Seen	Cancer Diagnosis	Hospital to which patient was admitted	Date of Admission
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				

Figure 2. Form which will be supplied to physicians for each three-month interval of the survey, for recording the names of their cancer patients and the indicated information. The form, which carries a return address and postage on the reverse side, is to be folded and mailed the last day of the three-month interval.

eral's ruling will be provided to any physician or hospital requesting it.

COLLECTION OF PHYSICIAN CANCER DATA

The interest and assistance of each Iowa physician has been solicited in a letter signed by Cecil W. Seibert, M.D., president of the Iowa Medical Society, Gilbert Clark, M.D., chairman of the Oncology Committee of the Iowa Medical Society, and by Joseph A. Buckwalter, M.D., director of the Iowa Central Tumor Registry.

All physicians in Iowa have been asked to participate in the survey in two ways: (1) Prior to each three-month period during the three years of the survey, each physician will receive a Physician Cancer Patient form. On this form the doctor is asked to put down the names of and minimal information about all patients with cancer whom he sees in his office during the indicated subsequent quarter-year (Figure 2). The most efficient way for him to accomplish this may be to make his secretary or nurse responsible for recording the names and other information as the patients are seen. At the end of the three-month interval, the form on which the names of the patients have been recorded (or bearing an appropriate note if no cancer patients have been seen), should be folded, sealed and mailed. The form carries our return address and postage.

(2) About six months after the patient has been seen by the physician, medical information will be requested from the physician *only* for those patients for whom an abstract has not been received from a hospital. In general, this means that no medical information will be requested from the physician if his patient has subsequently been admitted to an Iowa hospital. Important exceptions will be patients who are admitted to hospitals outside of Iowa or patients who have been "missed" in an Iowa hospital. Thus the physicians, by providing complete three-month lists of their cancer patients, will play an important role in helping to achieve the goal of identifying or finding all new cases of cancer. Most of the patients for whom medical information will subsequently be requested from the physician will be those with squamous or basal-cell skin cancer, or patients with terminal cancer. As previously suggested, if we are to obtain a reliable figure for the incidence of skin cancer, physicians' offices will need to make complete reports of patients with this diagnosis.

Another part of the survey in which the lists provided by physicians' offices will play a vital role has already been noted. An unknown number of Iowa cancer patients go outside the state for hospitalization and treatment. The only way of "finding" these Iowa residents who go beyond our borders for treatment of their neoplasms will be the cancer patient lists provided by our Iowa physicians. The out-of-state hospitals to which these patients have been admitted will be asked for the necessary medical information.

PROCESSING OF THE DATA

The Division of Vital Statistics in the State Health Department will constitute a third source of information about Iowa cancer patients. Photostatic copies of all death certificates of persons dying with or from cancer are sent to the Iowa Central Tumor Registry. Through these three sources of information—the hospitals, the physicians and the Division of Vital Statistics—it is hoped that we shall be able to find or identify all the new cases of cancer which occur in the state during the three years of the survey. That will be necessary if we are to achieve the primary objective of the survey—the assembling of accurate information concerning the incidence and prevalence of cancer in the state of Iowa.

The procedures which have been developed for processing the data in the Central Tumor Registry include maintaining a master file of all new cases of cancer as they are identified or found during the course of the survey. After it has been determined that a case of cancer reported by a hospital, a physician or the Division of Vital Statistics, is "new," it will be added to the master file. Procedures have been designed to eliminate duplication in the reporting of medical information about patients. For example, the cases reported by physicians on the Physician Cancer Report form will be checked against the file of patients reported by hospitals. As has been said, physicians will be asked to provide medical information *only* for those patients for whom no information has been obtained from a hospital. Correlation of the hospital patient file against the master file

will eliminate the possibility of duplication when a patient has been hospitalized in two or more hospitals.

The preliminary editing and coding of the cancer data will be done at the Iowa Central Tumor Registry, and it will retain custody of the original records at the close of the survey. At the National Cancer Institute, the editing and coding of the data will be completed, and the information will be transferred to magnetic tape for computer analysis.

SUMMARY

The plans which have been developed for implementing the Third National Cancer Survey in Iowa have been described. These plans, which will be implemented through the mechanism of the Iowa Central Tumor Registry, will involve all the hospitals and physicians in Iowa and the Division of Vital Statistics. In order to achieve the primary objective of the survey —the assembling of accurate information concerning the incidence and prevalence of cancer in the state of Iowa—it will be necessary to identify every new case of cancer occurring in the state during the years 1969-71. The procedures which have been described were designed with this objective in mind and with the purpose of minimizing the amount of effort that hospital personnel and physicians will need to expend.

The Third National Cancer Survey will provide an opportunity for Iowa hospitals and physicians to demonstrate again their capability and willingness to make another important contribution to our understanding of cancer.

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Modern Cultism

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Chicago, Illinois

BEFORE WE GET STARTED, I'd like to invite you to take a trip with me. It could be a short journey or a long one; our destination could be anywhere we like on the face of this troubled world.

We are going to a theoretical town of 1,000 persons. It is theoretical because it represents the results of a condensation of all the people in the world, proportionately, into a town of 1,000 population. The resulting community would look something like this: There would be 60 Americans, and the remainder of the nations of the world would be represented by 940 persons. That is the ratio of the population of the United States to the population of the remainder of the world—60 to 940.

The 60 Americans would have half of the income of the entire town, and the other 940 people would have shares of the other half. About 330 persons in the town would be classified as Christians; 670 would not. At least 80 townspeople would be practicing communists, and 370 others would be under communist domination. White people would total 303, and 697 would be non-white.

The 60 Americans would have an average life expectancy of 70 years; the other 940, less than 40 years on the average. The 60 Americans would have 15 times as many possessions per person as all the rest of the people. The Americans would produce 16 per cent of the town's food supply. They would eat 72 per cent above the maximum requirements, and they would either eat most of what they grew, or would store it for their own future use, at an enormous cost!

Since most of the 940 non-Americans in the

Mr. Taylor, formerly a member of the editorial staff of the DES MOINES REGISTER AND TRIBUNE, is director of the AMA Department of Investigation. He made this presentation at the North Central Conference of Medical Societies, in Minneapolis on October 29, 1967.

town would be hungry most of the time, some ill feelings would be directed toward the 60 Americans who appeared to their fellow townsmen to be enormously rich and fed to the point of sheer disbelief. The Americans also would have a disproportionate share of electric power, fuel, steel and general equipment.

Of the 940 non-Americans, 200 would have malaria, and three would have leprosy. Forty-five would die from malaria, cholera, typhus and other infections. One hundred sixty-five would die from starvation or malnutrition. None of the 60 Americans would ever get those diseases, or in all likelihood would ever be worried about them.

Each of the 60 Americans would be spending at least $87 per year for liquor and tobacco, but less than $20 per year for the finest medical care in the world.

THE MONETARY AND THE HUMAN COSTS OF QUACKERY

I wish I could go on indefinitely, but I shall take just another step or two. As we saw, the 60 Americans in our theoretical town would have half the income of the entire populace. So that the figures will be comparable, let's use official ones issued by the U. S. government. The latest available statistics place private consumer expenditures for health care at $24.8 billion per year. How much of that, you may wonder, goes to health quacks?

At best, the estimates are calculated guesses, but the most often quoted figure is $1 billion per year. That amount is used most often by governmental spokesmen, and they admit that it includes only those quackery schemes in which the U. S. has a direct interest—in other words, those involving interstate commerce. We suspect that another billion dollars is spent for worthless health care on an intrastate basis. At any rate, the monetary cost of quackery far exceeds the entire cost of health education, in addition to the entire cost of all medical research in this country.

And one authority in the health field has stated that "medical quackery each year costs more *lives* than all crimes in the United States." It is this cost of life—and health—that has placed America's physicians in the front lines of the war on quacks. It is an insidious side-effect of quackery with which medicine principally concerns itself—the delay in proper medical care that may cost life itself.

It is for this reason, too, that the medical profession is dedicated to educating people about cults—chiropractors and the other health mountebanks who turn their backs on scientific medicine.

In 1933 the AMA House of Delegates said: "Either the theories and practices of scientific medicine are right and those of the cultists are wrong, or the theories and practices of the cultists are right and those of scientific medicine are wrong." And in 1961 the AMA House said: "There can never be a majority party and a minority party in any science."

There is another AMA statement that I should like to present to you: "Physicians, as conservators of the public health, are bound to bear emphatic testimony against quackery in all its forms." That quotation is from Proceedings of the AMA Clinical Convention held at Philadelphia in 1847!

From its very inception 120 years ago, the AMA has been battling quackery, and it is dedicated to a continuation of that warfare against wasting the nation's health-care dollar —to continue fighting fraud at the bedsides of ill and desperate people. For as long as there are human beings, there will be human nature, and quacks—pretenders to an ability they don't possess.

The health quack is not very easy to spot these days. The stovepipe hat and pitchman's spiel have gone. In their place are their space-age counterparts—the suave, apparently sophisticated super-salesmen with Madison Avenue manners. Such merchants of menace, more insidious and unscrupuous than ever, have many new products—worthless diet fads, worthless food supplements, worthless cosmetic devices and treatments such as the all-purpose "spinal adjustment," worthless "cures" for everything, even in the areas of brain damage and other types of mental illness. They bilk the undiscerning—the uninformed, the desperate, the unsuspecting of all ages—of millions and millions of dollars a year, even in this era of great intellectual enlightenment.

SOME DEFINITIONS

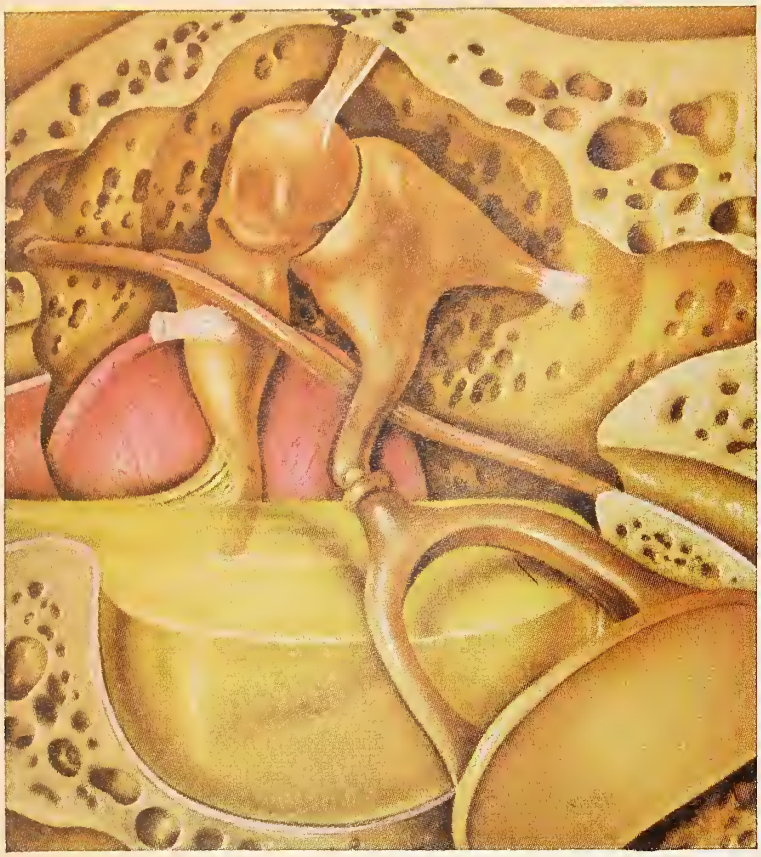
I think it appropriate, before we go any further, for us to make sure that we know what we are talking about. *Quackery* has been variously defined, but there probably is no better definition than this: "Quackery is the pretension or practice of a boastful pretender to a

See next page for prescribing informati



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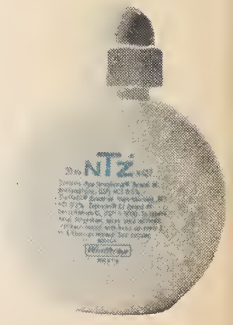
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skill which he does not possess, especially a medical skill."

DORLAND'S MEDICAL DICTIONARY defines a quack as "one who fraudulently represents his ability and experience in the diagnosis and treatment of disease, or the effects to be achieved by the treatment he offers."

Black's legal dictionary defines *fraudulent* as "a generic term embracing all multifarious means which human ingenuity can devise which are resorted to by one individual to get advantage over another by false suggestions or by suppression of truth."

Thus a fraudulent act may be a sin of commission or a sin of omission.

Quackery exists because the public permits it to exist. In some instances the public openly fosters its continuance and growth.

Theories regarding the motives that prompt people to patronize quacks are as numerous as the quacks themselves. Most authorities agree, however, that the root of all these motives is fear. Of all earth's creatures, only man is aware of the fact that someday he must die. The average man wants life, he wants it more abundantly, and he wants that abundance NOW! When his life is threatened as a consequence of accident or disease, the drive for self-preservation causes the sufferer to seek a cure—*any* cure.

Through fads, fraud, deception and delusion, the unknowing are led to seek non-existent shortcuts to health. Knowing only what they have been told by supersalesmen, millions of persons each year attempt self-medication for self-diagnosed ailments. Others, some with confirmed illnesses, are beguiled with assurances of quick cures—even for incurable diseases. A reputable doctor of medicine cannot always give such assurances, but the quack, unhindered by ethics or concern, can.

As I said earlier, quackery can negate the good that medicine can do. It can rob the patient of precious time—can steal that early period in a disease when prompt, efficient treatment can often make the difference between life and death. The cancer patient who infuses himself with expensive, sure-fire cures ranging from seawater to allegedly new drugs is, in reality, only depriving himself of the surgery, chemotherapy or radiation that might arrest his disease.

Quackery also can mask disease symptoms with telling effect. The non-prescription potion that soothes a persistent stomach-upset may serve only to postpone the ulcer patient's visit to the doctor, interposing a delay that often has serious consequences.

SIX CHARACTERISTICS OF QUACKS

How can a quack be spotted? There are six simple indicators:

1. He uses a special or "secret" formula or machine that he claims can cure disease.
2. He promises a quick or easy cure.
3. He advertises, using "case histories" or testimonials to impress people.
4. Refusing to accept the tried and proven methods of medical research and proof, he clamors constantly for "medical investigation" and recognition.
5. He asserts that medical men are persecuting him, or that they are afraid of his competition.
6. He claims that his method of treatment is better than surgery, x-rays or drugs.

PARAPHERNALIA OF QUACKERY

Quackery is more than just the quacks themselves. It includes their unproven drugs, their worthless devices and their treatment regimens. All of these fall within the purview of the AMA Department of Investigation, and I should like to sample a few of them with you.

First, let's look at drugs—specifically at so-called drugs recently touted as cures in two of the most fertile fields for quackery—cancer and arthritis. News articles appearing in the public press recently told about a "cancer vaccine" developed by Rand Development Corp., of Cleveland. The news stories contained glowing reports about the substance, and one nationally circulated magazine headlined it as a "cancer cure." Physicians across the country were asked about the so-called vaccine, and they began relaying those inquiries to the AMA Department of Investigation. Cancer patients also began inquiring for themselves.

We discussed the situation with the Cleveland Academy of Medicine, with the Ohio State Medical Association and, in the process of checking for information, with the American Cancer Society and the U. S. Food and Drug Administration. The Cleveland Academy of Medicine conducted a thorough investigation, found that the "vaccine" had not been subjected to proper scientific research and testing, and issued a warning that its use in human

beings was "completely unwarranted." The Cleveland Academy's report was given wide distribution by the AMA.

The FDA also acted. First it went into federal court and obtained a temporary injunction against the interstate shipment of the substance. Then, after a long and quite revealing federal court hearing, the manufacture and distribution of the substance both were banned. Rand had simply refused to abide by the rules established by the Congress for the marketing of drugs. Hundreds of cancer sufferers from all over the world had gone to Cleveland to get the substance, or had obtained it through illegal interstate shipments. In effect, as the court pointed out, each of them was delaying proper medical care and relying on an unproven cancer remedy. First, the actions of the Cleveland Academy of Medicine, and then the forthright legal steps taken by the FDA stopped what could have been another Krebiozen fiasco.

Then there was dipyrone, a drug being used for the treatment of arthritis. Arthritis sufferers in at least five southern states had obtained it from a Mexican physician in Piedras Negras, across the border from Eagle Pass, Texas. Some had brought back ampules of it—unlabeled, of course—and had asked their own physicians to inject it. Again the inquiries started coming in, and we began searching for answers. It was estimated that as many as 2,000 persons in one north central Louisiana area alone were using the drug as an arthritis "cure." A congressman was involved, too, and I hasten to add that he helped clean up the situation after he learned the facts.

The FDA was able to get some of the unlabeled ampules, and analysis showed they contained the drug dipyrone, a pain-killing substance that is not approved in this country as a treatment for arthritis. The drug has some very dangerous side effects, principally agranulocytosis, a blood disease in which the white blood cell count drops rapidly and infection follows. In the southern states at least four treated persons had died—two of them, reportedly, from agranulocytosis. The AMA, the FDA and the congressman all issued warnings to the public, and I am happy to say that the traffic of arthritis sufferers across the border has subsided.

Then there are the devices—a fertile field for quackery since time began. George Washington, for example, once bought a pair of metallic "tractors"—simple rods that were supposed to "draw out" disease and illness.

I could talk for hours on this field, but let me confine myself to just one device in the very popular field of "taking off pounds effortlessly." I believe most intelligent people know that the only way to reduce is to take in fewer calories than the body can be expected to use up. But the blandishments of the quacks, with their regimen pills, their special diets and their devices, are terribly appealing.

After all too long a time and after hundreds of letters had come to us, the government recently obtained a permanent injunction barring interstate distribution of a gadget that was supposed to take off pounds effortlessly. It had a variety of names—Figurecare, Figuremagic, Figuretone and Isotron, for example. The gadget sent electric currents into body through pads applied to the skin, causing an intermittent contraction of muscles. It did *not* take off pounds effortlessly.

THE PRINCIPAL CULT—CHIROPRACTIC

In 1963 the AMA regarded health quackery as important enough to have its Board of Trustees appoint a Committee on Quackery, made up of five physicians who are knowledgeable in that field. The Committee's first mandate was—and is—to take a good look at the chiropractic cult, and to mount an educational program on chiropractic.

You may have wondered just why medicine is attaching such a high priority to an educational program on the cult of chiropractic.—As you know, it is a cult, about as far removed from scientific medicine in the diagnosis and treatment of human illness as it is possible to get!

Before I try to answer that question, let's take a brief look at what chiropractic really is. The 1960 census reported 14,360 chiropractors in the United States, but the American Chiropractic Association claims there are 25,000, and a public relations firm representing the chiropractors says there are 35,000. At any rate they are the largest organized group of irregular practitioners. All states except Mississippi and and Louisiana license chiropractors in an attempt to regulate their practice. As a result of such licensure, however, many people, including those who are well informed about most subjects, vaguely believe that a chiropractor is

a genuine medical doctor—a spinal specialist whose training differs somewhat from, but is not significantly inferior to, that of medical specialists. For example, a recent issue of LIFE carried a feature article on a criminal prosecution; the headline read "The Doctor Who Was Convicted of Murder." One had to get well into the small print of the story before he learned that the "doctor" was a chiropractor. Too few people realize that chiropractors reject the findings of modern medicine and the allied sciences about the causes and treatment of diseases, because those findings conflict with the ideas of Daniel David Palmer.

Palmer was a Davenport, Iowa, grocer and fishpeddler who dabbled in animal magnetism, a popular form of quackery in nineteenth-century America. The practitioners of animal magnetism claimed to be a unique group of human beings with "personal magnetism" so great as to give them the power to cure disease. Palmer rented an office and practiced magnetic healing.

In 1895, D. D. Palmer announced a "great discovery." His son, B. J. Palmer, described it to a Wisconsin court in 1910 while testifying in a case involving charges of illegal practice of medicine by a chiropractor. In his father's office building, said B. J., there was a janitor named Harvey Lillard who had been deaf for 17 years. One day Harvey dropped by to discuss his problem with healer Palmer. Asked how his deafness began, Lillard (who seemed to have no trouble hearing Palmer's questions) replied, "I was in a stooped, cramped position, and while in that position I felt something pop, and heard it crack in my back." He was deaf within two minutes, he said, and hadn't been able to hear anything since. Palmer laid the deaf man down on a cot, looked him over, and noticed "a great subluxation (misalignment) on the back," allegedly causing a visible lump.

"Father reasoned out the fundamental thought of this thing," B. J. told the court, "which was that if something went wrong in that back and caused deafness, the reduction of that subluxation should cure it." Palmer gave Harvey's "subluxation" a well-aimed whack, and according to B. J.'s testimony, "the bump was adjusted, was reduced [and] within 10 minutes Harvey had his hearing and has had it ever since."

Animal magnetist Palmer and his son B. J. apparently did not know that the nerves controlling hearing are contained in the head, and do not reach even to the spine.

Palmer thought he had made the breakthrough that had eluded the greatest medical minds of the ages—that he had found the simple cause for all human disease. Disease, he decided, is caused by misaligned vertebrae. These misalignments or "subluxations" impinge on the nerves that issue from the spine, thus causing illness. Palmer believed it in 1895, and chiropractors believe it today—that there is one cause of all disease, a spinal subluxation, and one cure for all disease, a spinal adjustment.

CHIROPRACTORS DON'T EVEN HAVE THE EDUCATION OF A LIBERAL ARTS GRADUATE

You may have heard the argument that medicine opposes chiropractic because chiropractors compete with physicians economically—cutting into their practices. That, I think, is a lot of nonsense! If anything, chiropractors add to the physician's load, for it is the physician who has to come along, pick up the pieces and repair the damage that the chiropractor has done, or that the chiropractor has caused by delaying the start of proper medical care.

Medicine's reason for trying to do something about chiropractic is the same reason it has for doing something about every other type of quackery—namely, to prohibit poorly-trained individuals from performing functions for which they are totally unqualified, and thus adding to people's health hazards.

And, you might ask, what does medicine hope to accomplish by pointing out the inadequacies of chiropractic. Primarily, I think, the so-called chiropractic colleges, of which there are about a dozen, must be exposed as the substandard institutions they are—unworthy of consideration by the young people of our country. At the same time, education of the public, we think, will alert the people to the evils of chiropractic. We have the job under way. To go into detail would take too much space, but I should like to tell you about a few things that have been done.

The so-called chiropractic colleges claim that for admission a student must have a high school diploma "or its equivalent" (whatever that means). The staff of the AMA Department of Investigation undertook to find out their actual admissions requirements. Seven letters purporting to be the work of applicants were

sent to seven different chiropractic schools. Each of those letters stated specifically that the applicant was *not* a high school graduate, and each letter was designed to reveal a considerable degree of illiteracy. Would you believe it? Five of the seven schools accepted the applicants on the basis of those letters, at least on a conditional basis.

For your information, the Northwestern College of Chiropractic, in Minneapolis, was one of those five. So was the Palmer College of Chiropractic, in Davenport.

A little leaflet entitled "Did You Know That . . . ?" has been particularly effective in the AMA's educational program on chiropractic. Its entire contents consists of eight uncontroverted facts about chiropractic and the sources from which those facts came—in many instances the exact words of the leaders of the cult. I'll quote only a few examples.

Fact No. 1 states: "Chiropractic is a method or system in which the practitioners adhere to the doctrine that disease can be cured by the manual manipulation of the spine. Chiropractors are prohibited by law from prescribing drugs or performing surgery."

Fact No. 2 states: "Chiropractic schools are not accredited by any recognized educational accrediting body in the United States."

Fact No. 5 states: "The majority of instructors in chiropractic schools are not trained or qualified as teachers of the basic sciences, and do not possess college degrees."

Fact No. 8 states: "Chiropractors are not allowed to practice in any hospital accredited by the Joint Commission on Accreditation of Hospitals."

Let's take another look at Fact No. 5. How do we document the statement that the majority of teachers in chiropractic schools are not trained or qualified as teachers of the basic sciences and do not possess college degrees? In the sources listed in the leaflet are two statements. The first is a direct quotation from a memorandum prepared by the director of education of the American Chiropractic Association, presented at the A.C.A. meeting June 15, 1964: "Too many instructors [in chiropractic schools] are teaching the basic sciences without having any advanced or graduate training in these sciences. Too many instructors [are] not trained or qualified as teachers nor masters of their fields, resulting in slavish devotion to textbook teaching and instruction considerably below the level of post-college professional education."

The other statement is as follows: "According to recent catalogues of schools of chiropractic that list the names and degrees of their faculty members, more than 50 per cent of the faculty of these schools of chiropractic do not have generally recognized college degrees."

Recently the staff of the AMA Department of Investigation completed a survey of the faculties of the 13 chiropractic schools in the U. S. and Canada. The results of that survey were published in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. The survey pointed out that in the latest edition of ACADEMIC DEGREES published by the Office of Education of the U. S. Department of Health, Education and Welfare, the D.C. or Doctor of Chiropractic degree was listed as "spurious." *Spurious,* according to that publication, means "granted by degree-granting mills, or diploma mills."

I thought that with this in mind you might like to know some of the things the survey showed. First, let's take a brief look at the Palmer Chiropractic School, the largest of them all, having a student enrollment of approximately 1,100. According to the Palmer School's own catalog, 21 of its 29 faculty members *do not* have any recognized four-year academic degree, and 27 of 29 of them are listed as having the "spurious" D.C. degree.

In discussing the Palmer School, I'd be remiss if I didn't make another point. Palmer's 1,100 students and 29 so-called faculty members make a student-instructor ratio of nearly 38 students for each instructor. We checked the ratio at the Medical School at the University of Minnesota and found that there were 334 full-time faculty members for 614 students—a ratio of one faculty member for each 1.8 students. The ratio at the Medical School of the University of Iowa is one faculty member for each 1.6 students.

Also, I thought you would like to know the results of our survey of the so-called faculty of the Minneapolis chiropractic school. Its catalog lists 19 faculty members, 17 of whom have no recognized academic degrees. Even the dean of that school has none.

Let's take a brief look at two of the other larger chiropractic schools. The Los Angeles College of Chiropractic, in Glendale, Cali-

fornia, lists 44 faculty members. Twenty-five of them list recognized four-year academic degrees, but 19 list no recognized four-year academic degrees. Of the 25 apparently reputable degrees, 12 were not confirmed when we requested confirmations from the institutions that were said to have granted them.

Another is the National College of Chiropractic, in Lombard, Illinois. Twenty-five members of its faculty list recognized four-year academic degrees. Twenty-one do not list any recognized four-year academic degrees. And here again, three of the claimed recognized degrees were not confirmed by the listed granting institutions.

There is one more. The president of the Texas Chiropractic College, in Pasadena, Texas, has a master's degree from the Massachusetts Institute of Technology—in engineering. What does he teach? Pathology!

In all of the chiropractic schools surveyed, 228 of the total of 267 faculty members listed the "spurious" D.C. degree. It is not at all surprising, we think, that no chiropractic school is accredited by any recognized educational accrediting agency in the United States.

CONCLUSION

We have built a factual, objective case about chiropractic, and we think everyone in the health field should join in presenting the facts to the public. The AMA laid the cornerstone last November, when its House of Delegates, the policy-making body for all of medicine, adopted a specific statement on chiropractic. The statement says: "It is the position of the medical profession that chiropractic is an unscientific cult whose practitioners lack the necessary training and background to diagnose and treat human disease. Chiropractic constitutes a hazard to rational health care in the United States because of the substandard and unscientific education of its practitioners and their rigid adherence to an irrational, unscientific approach to disease causation.

"In 1965, a United States District Court, in upholding a state's constitutional right to refuse to license chiropractors, said that 'since chiropractic claims to be a complete and independent healing art capable of curing almost all kinds of disease, the state Legislature may have felt that the requirement of a foundation in materia medica and surgery . . . would be a protection to the public.' Without dissent, the United States Supreme Court affirmed the decision.

"The wisdom of these decisions by the nation's highest courts justifies the medical profession's educational program of alerting the nation to the public health threat posed by the cult of chiropractic.

"Patients should entrust their health care only to those who have a broad scientific knowledge of diseases and ailments of all kinds, and who are capable of diagnosing and treating them with all the resources of modern medicine. The delay of proper medical care caused by chiropractors and their opposition to the many scientific advances in modern medicine, such as life-saving vaccines, often ends with tragic results."

Since we are talking about what chiropractic is, I think it is fitting to conclude with an excerpt from the AMA booklet entitled CHIROPRACTIC: THE UNSCIENTIFIC CULT. This booklet is an objective compilation of statements and claims contained in books written by chiropractors, in published matter from chiropractors and chiropractic schools, in court testimony by chiropractic leaders, and in teaching materials used in chiropractic schools. The quotation that I'd like to give you is from one of chiropractic's leading spokesmen for many years, B. J. Palmer. In his book ANSWERS, which was published in 1952, he wrote:

"Q. What are the principal functions of the spine?

"A. To support the head
To support the ribs
To support the chiropractor."

Letters to the Editor

Sir:

For about six years I have been trying to get a human skeleton for our State Medical Library. Finally, with the untiring help of our efficient acting medical librarian, Mrs. Marion Samo, we got a beautiful specimen.

Go and see it.

PETER VAN ZANTE, M.D.

Pella, Iowa
November 26, 1968

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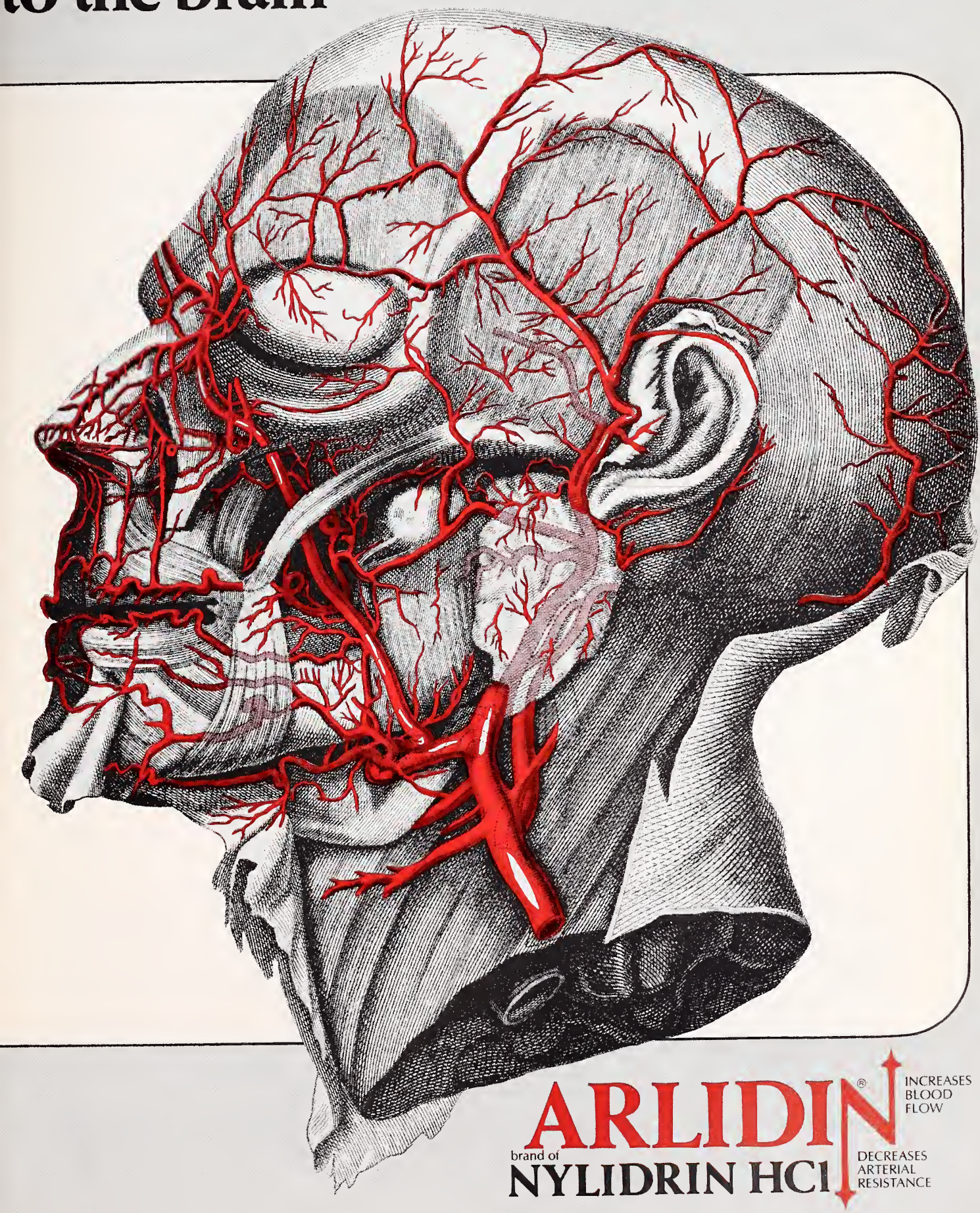
Arlidin also increases blood flow to the eye and inner ear to help manage ischemic disorders of those organs.

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DOSAGE: Usual effective dosage ½ to 1 tablet t.i.d. or q.i.d.; increased, if necessary, to 2 tablets t.i.d. or q.i.d. Parenterally, 0.5 cc. by subcutaneous or intramuscular injection; increased gradually to 1 cc. one or more times daily, as needed. SIDE EFFECT: Occasional palpitation. PRECAUTIONS: Use with caution in the presence of a recent myocardial lesion, paroxysmal tachycardia, severe angina pectoris, thyrotoxicosis. CONTRAINDICATION: Acute myocardial infarction.
SUPPLIED: Tablets, 6 mg., scored; bottles of 100 and 1000. Parenteral, 5 mg. per cc., 1 cc. ampuls (5 per box); 10 cc. multiple-dose vials (1 per box).
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That's utter nonsense, of course. But it's no more nonsensical than what some people say about aspirin. Namely: since all aspirin is at least supposed to come up to certain required standards, then all aspirin tablets must be alike.

Bayer's standards are far more demanding. In fact, there are at least *nine specific differences* involving purity, potency and speed of tablet disintegration. These Bayer® standards result in significant product benefits including gentleness to the stomach, and product stability that enables Bayer tablets to *stay* strong and gentle until they are taken.

So next time you hear someone say that all aspirin tablets are alike, you can say, with confidence, that it just isn't so.

You might also say that all interns aren't alike, either.



Scientific Articles

The Phenylketonuria Controversy 1968

CHARLES F. JOHNSON, M.D.
Iowa City

THIRTY-FOUR YEARS AGO, Fölling found phenpyruvic acid in the urines of 10 mentally defective patients.[1] Jervis then proved that the condition was due to homozygosity for an autosomal recessive gene[2] with an accumulation of phenylalanine in blood and spinal fluid.[3] He identified the metabolic problem as an inability to oxidize phenylalanine to tyrosine,[4] and demonstrated a lack of liver phenylalanine hydroxylase.[5] The cause of the mental retardation associated with phenylketonuria was thought to be an accumulation of phenylalanine or its products in the body. This suggested that a lowering of blood phenylalanine might be therapeutic. Several early therapeutic approaches, which included a low-protein diet,[6] glutamic-acid feeding,[7] and tyrosine feeding[8] were unsuccessful.

In 1943, Schramm and Primosign prepared a phenylalanine, tyrosine, tryptophan-free diet by passing protein hydrolysate through a charcoal filter.[9] However it was not until 1953 that the first report was made on the treatment of phenylketonuria with this hydrolysate. In a "Preliminary Communication," Horst Bickel *et al* reported the use of a phenylalanine-free protein hydrolysate with added tyrosine, tryptophan and cystine on a two-year-old, severely-retarded female.[10] All biochemical abnormalities returned to normal, and a gradual improvement took place in the child's mental state.

"Within the next few months she learned to crawl, to stand, and to climb stairs; her eyes became brighter; her hair grew darker; and she no longer banged her head or cried continuously."

In a more detailed report in 1954, Bickel concluded that an excess of phenylalanine or its breakdown products had a deleterious action on mental function.[11] The next report of successful dietary treatment using a costly mixture of amino acids appeared in 1955 and involved five children who improved on diet and deteriorated when it was discontinued.[12] There soon followed a flood of reports substantiating the efficacy of dietary treatment. In 1958, Knox reviewed reports on 30 treated patients under two years of age, and found that one-half of the children had developmental quotients of more than 60, "in striking contrast to the incidence of only 2 per cent of such high-grade patients among untreated phenylketonuric patients."[13] Knox also reviewed new metabolic discoveries in phenylketonuria. In addition to elevated serum phenylalanine and phenylacetic acid, lowered amounts of serum 5-hydroxytryptamine, epinephrine, serotonin and tyrosine had been found. Excesses of orthohydroxyphenylacetic acid, indolepyruvic, indoleactic and indoleacetic acids were shown in phenylketonuric urines, and urinary 5-hydroxyindoleacetic acid was found to be low. No relationship had been shown between

Dr. Johnson is an assistant professor of pediatrics and the assistant director of the Child Development Clinic at the University of Iowa College of Medicine.

subsequent IQ and plasma phenylalanine concentration. Knox found that abnormalities of myelinization in younger patients were the only consistent finding in 27 autopsies of phenylketonurics, and he concluded that the central nervous system changes which had been described did not account for the mental deficiency.

Despite the obvious evolving metabolic complexity of the disease, Wright was prompted by the current enthusiasm for dietary therapy to state, in a 1962 report of mass screening using the Guthrie test: "Strict dietary control of phenylalanine intake can reduce blood content of this amino acid to nontoxic levels. Such treatment will prevent progression of the disease, produce some amelioration of the apparent brain damage, and if instituted early enough, perhaps produce a normal child."[14]

THE PHENYLKETONURIA CONTROVERSY

This early enthusiasm and optimism has been dampened in recent years by several articles which have questioned the efficacy of treatment, criticized the research methods and exposed as assumption that which had previously been considered fact.[15-18]

Doubt has been raised as to whether the diet is fully protective in preventing mental retardation.[19, 20] An article in 1965 reflecting on the current status of PKU treatment concluded: "Much more data taking into account all the known variables must be accumulated and carefully analyzed before definitive statements can be advanced regarding the precise value of diet in preventing or ameliorating the deleterious effects of phenylketonuria."[21] The discovery of children with normal intelligence and untreated phenylketonuria has emphasized the need to clarify the expressivity of the disease and the conclusion that the diet alone has prevented mental retardation. The criteria for the diagnosis of phenylketonuria, as well as the laboratory methods used to quantitate serum and blood phenylalanine, have been critically reviewed.

Disagreement about dietary efficacy is matched by the lack of agreement over the age of dietary cessation. Recommendations range from discontinuation at three years[22] or six years of age,[23] to continuation on the diet for a lifetime.[24] The discovery that the nonphenylketonuric children of a phenylketonuric mother may have microcephaly, intrauterine growth retardation and mental retardation[25] has fanned this controversy by demonstrating that although the mother may not benefit from dietary treatment, her high blood levels of phenylalanine will affect her fetus. There is no agreement about the need for treating older children, or children with normal intelligence who have elevated serum phenylalanine levels. The ideal phenylalanine blood level for optimum dietary control has not been established, although most authorities recommend keeping patients on the diet if their blood levels are between 3 and 6 mg. per cent.[24]

Widespread screening of newborns, which itself is open to question,[26-29] has led to the discovery of several different states of hyperphenylalaninemia which are not cases of "classical" or "true" phenylketonuria. These conditions, which include transient hyperphenylalaninemia, "soft" phenylketonuria,[30] persistent hyperphenylalaninemia, and hyperphenylalaninemia associated with hypertyrosinemia, may account for between 15 and 30 per cent of the infants who, on screening, appear initially to have "true" phenylketonuria![31] It is not known how many children whose phenylalanine levels either return to normal or remain slightly elevated have been considered "true" phenylketonurics. If therapy had been started, those patients would naturally be thought to have benefited from the diet. A presumptive positive Guthrie test is 4 mg. per cent or above. The Guthrie test is no more than a qualitative test, and is only roughly quantitative. The tyrosine level is not elevated in classical phenylketonuria.

Variants of "true" phenylketonuria have been found. Hyperphenylalaninemia with an absence of the usual urinary metabolites has been described,[32, 33] and it is possibly due to a deficiency of phenylalanine transaminase, which prevents conversion of phenylalanine to its urinary metabolites. These cases would be detected by Guthrie screening of the blood, and not by urine tests. Serum phenylalanine may increase gradually in "latent phenylketonuria,"[34] and therefore may not be detectable on early screening.

The role of phenylalanine in phenylketonuria has yet to be clarified. Animal experiments

which support the postnatal toxic effect of phenylketonuria do not duplicate clinical disease and have been found inconclusive.[15] Discoveries of metabolic abnormalities in phenylketonuria continue to accumulate, and they complicate what had originally been considered a simple process. The presence of a phenylalanine cofactor and inhibitor, and the phenylalanine inhibition of tyrosine hydroxylase and amino-acid uptake by the central nervous system are just a few of the newer discoveries.[34] Tyrosine hydroxylase has been found to catalyze small amounts of phenylalanine to tyrosine in phenylketonurics, providing an alternate pathway whereby phenylalanine may be changed to tyrosine in the absence of phenylalanine hydroxylase.[24, 34] During treatment, individual dietary phenylalanine needs have been found to vary from 25 mg./kg./day to twice or three times that amount. This, along with the considerable variation found in phenylalanine tolerance tests of homozygotes and heterozygotes, suggests a spectrum of enzymatic dysfunction or deficiency ranging from complete to partial impairment.

Phenylketonuria can no longer be considered simply a disease in which the lack of a single enzyme results inevitably in mental retardation because of the accumulation of toxic levels of phenylalanine and its products.

THE PHENYLKETONURIA ENIGMA

Controversy can act as a catalyst for further experimentation and eventual clarification. However the dietary treatment of phenylketonuria is no longer considered experimental. Consequently there are medical-legal problems involving early identification and treatment of phenylketonuria. If the diet were free of side effects, there would be less need for immediate clarification. Children on the Lofenalac diet tend to grow and gain poorly,[5] but this side effect has been considered minimal. The dangers of a *deficient* phenylalanine intake have not been stressed as much as the dangers of *elevated* blood-phenylalanine levels, however. Inadequate levels of phenylalanine in children can result in retarded bone growth,[35] in vacuolization of bone-marrow cells,[36] in megaloblastic anemia,[37] in hypoglycemia and even in death.[26, 38] It is possible that in the preparation of a phenylalanine-free hydroxylate, some other essential food substances are removed. This has led to speculation that the diet itself may cause mental deficiency!

The conclusion drawn from psychological testing have been openly criticized. D.Q. and I.Q. scores have been used to measure intellectual development, and thus testify to the efficacy of the diet in preventing mental impairment. Many of these tests cannot be compared, and furthermore, many feel that developmental tests performed in early childhood have little predictive value. Observer bias may cloud test results of children known to be on the diet. Over a period, the seizures and other behavior traits of children with untreated phenylketonuria also ameliorate.

The psychological effects of the strict diet have been largely ignored. The responsibility for possibly retarding the child through dietary mismanagement, as manifested by elevated serum levels, places severe stress on the mother as well as on the child. In an attempt to attain superficially favorable results, there may be a tendency for parents to exercise tight dietetic control immediately before blood specimens are to be collected, thus further complicating the evaluation and management of the diet. Biochemical control during illness is a problem throughout dietary treatment.

Though a great deal of information about the biochemical abnormalities of phenylketonuria has accumulated, it is obvious that a clearer understanding of the known secondary metabolic aberrations is needed. The relationship between these abnormalities and the disease process must be investigated. Until such studies are made, the significance of the various hyperphenylalaninemias will remain unclear. Perhaps other less exacting, less dangerous and more promising therapies exist. How can the efficacy of dietary therapy in phenylketonuria be properly studied when a true control group requires no dietary therapy? Can the phenylketonuria controversy be solved?

THE COLLABORATIVE STUDY OF CHILDREN TREATED FOR PHENYLKETONURIA

An attempt is being made to solve the phenylketonuria controversy. Thirteen medical centers established the Collaborative Study of Children Treated for Phenylketonuria, and began a series of meetings in 1965 to design

a national research project that would "increase the knowledge and understanding of phenylketonuria." Further meetings were held in 1966 and 1967. Efficacy of treatment, intellectual variables, physical concomitants, relevant social factors, and the significant dimensions of PKU were listed as specific areas for investigation.

The diagnosis of phenylketonuria was defined as a serum-phenylalanine level of 20 mg. per cent or more, with a normal or low serum-tyrosine level and excessive orthohydroxyphenylacetic acid or other classical metabolites in the urine, as demonstrated by paper chromatography. Children fulfilling these criteria were to be randomly assigned by the project director to two treatment groups in which their median serum-phenylalanine levels would be maintained either between 1.0 and 5.5 mg. per cent or between 5.5 and 10.0 mg. per cent. Unaffected siblings would serve as controls.

In order to eliminate children with transiently increased phenylalanine levels, the diagnosis would be reestablished between 90 and 100 days by discontinuing the Lofenalac diet and challenging with evaporated milk. A rise of the serum-phenylalanine level above 20 mg. per cent within 24 hours, with a serum tyrosine below 5 mg. per cent and a rise in urinary orthohydroxyphenylacetic acid would qualify the patient for continuation in the study.

Electroencephalographic techniques were standardized, and readings were to be performed by one electroencephalographer. Dates and types of psychological and social measurements, dietary records and social-information forms were standardized. In order to make laboratory procedures and results uniform, diagnostic and other critical specimens of urine and blood from patients in participating clinics were to be sent to a central laboratory for comparison. Samples were to be mailed periodically from the central laboratory to participating laboratories.

In order to participate in the study a clinic had to be located in an area with a state law requiring the screening of newborns, and adequate laboratory facilities. The University of Iowa Child Development Clinic qualified and became one of the 13 participating units. The study began in October, 1967, and as of November, 1968, a total of 54 patients had been admitted to the study.

HYPERPHENYLALANINEMIA IN IOWA—1968

The incidence of phenylketonuria is generally accepted as 1 in 20,000 to 1 in 10,000. Thus there should be 137 to 274 cases of phenylketonuria in Iowa's 1966 population of 2,745,540. With a birth rate approximating the 1966 level of 48,641, there should be two to five new cases of phenylketonuria each year in Iowa.

Only 44 cases are known to this Clinic. Of the 35 patients referred to the Child Development Clinic in the past 10 years, 28 are still being followed. The 35 children represent 25 families. Eight families have two such children each, and one family has three children with phenylketonuria. Two of the children are in state schools, two are in communities, and three have moved out of the state. There are five children in Woodward State Hospital and four children in Glenwood State Hospital, and together they represent 20 per cent of the known cases of phenylketonuria in the state. Four such patients from Glenwood and one such patient from Woodward have been discharged and are back in their respective communities. During the last three years two hospitalized children with phenylketonuria have died.

There has been only one new case of phenylketonuria seen at the Child Development Clinic during the past year, despite the expectation that two to five new cases will be discovered each year and despite the fact that state law requires all newborns to be given the Guthrie test.

The low incidence of phenylketonuria in Iowa may reflect several factors:

1. Screening may be incomplete, in that all newborns may not be tested. According to the Iowa State Hygienic Laboratory, when the number of Guthrie tests being done by approved laboratories in the state is compared with the number of live births reported, it is apparent that only 70 per cent of Iowa newborns are being screened!

Children may go unscreened for various reasons. Recently a five-week-old baby was referred to the Clinic with an elevated blood Guthrie phenylalanine level. The test had been performed for the first time a few days previ-

TABLE I

THIRTY-TWO PKU CHILDREN TREATED WITH LOW PHENYLALANINE DIET

No.	Name	Age on Diet (mos.)	First Psych. Test (mos.)	IQ-DQ	Test	Age off Diet (mos.)	Age Last Psych. Test (mos.)	IQ-DQ	Test	Time on Diet (mos.)	Test Difference
1	BT	1/3	6	106	c	—	40	93	s	42*	−13
2	BB	1	11	82	v	—	45	90	s	52*	+ 8
3	MJA	1	8	110	c	—	42	102	sc	45*	− 8
4	MS	2	2	100	c	—	7	100	g	12*	0
5	MJ	2	9	63	c	—	53	78	s	59*	+15
6	KUT	3	6	110	c	—	26	110	s	35*	+ 1
7	SB	5	5	90	g	78	81	70	s	73	−20
8	FM	7	57	49	v	62	80	25	c	55	−24
9	PC	10	15	60	c	92	128	55	w	82	− 5
10	RC	10	9	57	c	—	44	64	mp	54*	+ 7
11	HL	11	49	70	s	79	90	57	w	68	−13
12	WK	11	10	54	g	47	84	31	s	37	−23
13	BD	14	14	36	c	—	27	40	c	**	+ 4
14	MP	18	32	16	c	54	72	10	c	36	− 6
15	BL	20	20	33	c	74	80	27	c	54	− 6
16	BC	21	53	27	c	74	112	26	s	53	− 1
17	RJ	23	22	45	c	—	57	49	s	67*	+ 4
18	HH	26	26	89	c	74	98	109	w	48	+20
19	KUC	33	79	63	s	84	108	59	w	51	− 4
20	BJ	36	35	26	c	—	48	36	c	**	+10
21	SM	40	40	70	v	75	88	42	s	35	−38
22	SD	46	46	51	c	87	111	59	w	41	+ 8
23	HE	49	48	58	s	97	133	73	w	48	+15
24	GK	52	51	32	c	58	67	29	c	6	− 3
25	MM	51	51	55	v	—	62	57	s	63*	+ 2
26	MB	52	63	35	v	71	99	20	c	19	−15
27	JJ	56	55	35	c	113	138	61	s	57	+26
28	UM	70	70	53	mp	91	105	54	s	21	+ 1
29	BS	74	74	76	s	80	122	72	w	6	− 4
30	PA	85	79	58	s	95	114	53	s	10	− 5
31	RP	92	93	42	s	118	151	46	w	26	+ 4
32	HM	92	92	98	s	100	175	99	w	8	+ 1
Average		32	38	61		80	84	59		39 *47	− 1.94
n		32	32	32		21	32	32		21 *9	32

s = Stanford-Binet, c = Catell, v = Vineland, w = WISC, g = Gesell, mp = Merrill-Palmer, sc = screening. * Still on diet.
** Moved out of state.

ously because it had been recommended by a local physician who believes that the blood-phenylalanine levels are too low for detection during the first few days of life, and that it is safer to call children back at five or six weeks of age for testing. Current University Hospitals philosophy, which accords with public policy in Iowa, is to perform a Guthrie test prior to the infant's discharge from the newborn nursery, and also at the four- to six-week well-baby checkup. The test should always be done within the first few days of life, since the risk of the baby's not being seen at four to six weeks of age is too high for safety, and especially since routine ferric chloride urine testing in later months is no longer being done.

2. The Guthrie test technique may be poor. If the test is to be performed properly, each of the three circles on the filter paper must be filled entirely with blood. An inadequate amount of blood will produce a falsely low phenylalanine level. One per cent of Guthrie tests submitted to the Iowa State Hygienic Laboratory are unsatisfactory because the circles are not filled with blood, or because absorption is not uniform.

3. There may be patients in the state, unknown to this Clinic, who are being followed by local physicians.

4. The incidence of the altered phenylalanine hydroxylase gene may be low in the Iowa population.

5. The discovery of only one new case in any single year of a series may be an acceptable probability.

6. There may be some normal and retarded children in Iowa with phenylketonuria who have not been identified. Williamson recently screened 32,818 retarded school-age children in a statewide program in California. Sixty-eight children with phenylketonuria were located, of whom 26 (38 per cent) were newly identified.[39]

An awareness of other causes of hyperphenylalaninemia has led to more critical screening at this Clinic, and a lowered incidence of the diagnosis of "true" phenylketonuria. Three children were seen in the first three months of 1968 with elevated Guthrie tests prior to discharge from the newborn nursery who did not prove to have significantly elevated serum-phenylalanine levels on follow-up quantitative determinations (Figure 1).

Case No. 1. U, a full-term baby, was seen at three weeks of age after a third-day Guthrie of 4 mg. per cent. A fluorometric tyrosine level of 3.5 mg. per cent and a phenylalanine of 4.2 mg. per cent were obtained, and three follow-up Guthrie tests showed 2 to 4 mg. per cent.

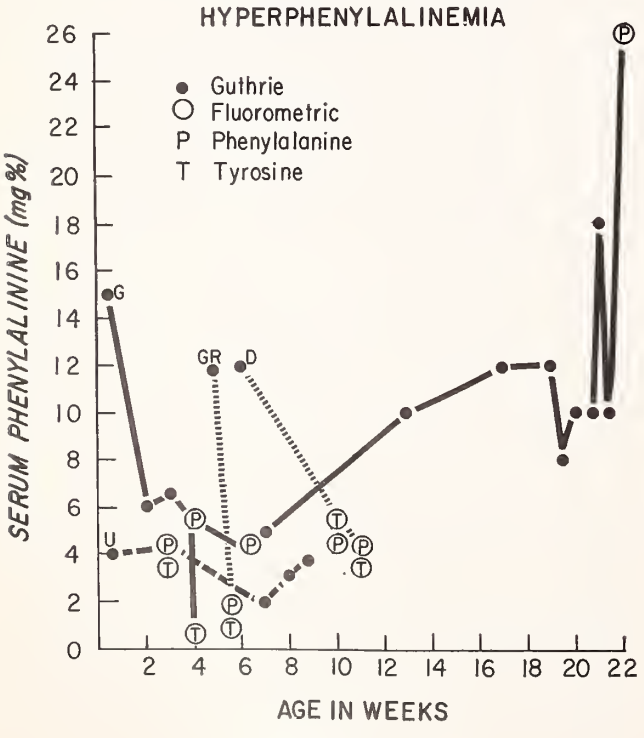


Figure 1

Case No. 2. D was seen at six weeks of age because of an elevated newborn Guthrie test. One Guthrie of 12 mg. per cent was returned on a hemolyzed specimen. Follow-up fluorometric fasting tyrosines were 5.4 and 4.0 mg. per cent; phenylalanines were 5.0 and 4.7 mg. per cent. These two children exhibited the same serum pattern as may be seen in prematures and full-term infants with "immature enzyme systems" and elevated tyrosine and phenylalanine levels.

Case No. 3. GR was seen for the first time after a Guthrie test of 12 mg. per cent was reported at age five weeks. Fluorometric fasting phenylalanine and tyrosine levels one week later were 1.8 and 1.5 mg. per cent, respectively, suggesting a transient hyperphenylalaninemia without hypertyrosinemia.

Case No. 4. An initial Guthrie of 15 mg. per cent was obtained at less than one week of age from infant G. From two until seven weeks of age the phenylalanine level rose gradually from 6 mg. per cent to 12 mg. per cent, and the fluorometric phenylalanine level was 26 mg. per cent at five months. The tyrosine levels were normal, and urine ferric chloride tests were negative. This child was hospitalized for metabolic studies and dietary therapy, and appears to have persistent hyperphenylalaninemia, rather than "true" phenylketonuria. A child with latent phenylketonuria would have had much the same clinical course except that typical metabolites would eventually have appeared in the urine.

PHENYLKETONURIA PATIENTS SEEN AT THE IOWA CHILD DEVELOPMENT CLINIC

Of the 35 cases known to the Child Development Clinic of the University of Iowa, 9 are presently on diet, 3 have never been treated, 21 are now off the diet, and 2 have been lost to follow-up. Figure 2 shows the starting ages and lengths of dietary treatment, with information on pre-treatment and the most recent intellectual estimates. Attention is directed to the fact that primarily "delevopmental tests" are administered to children diagnosed at less than two or three years of age, and intellectual determinations are expressed in terms of WISC

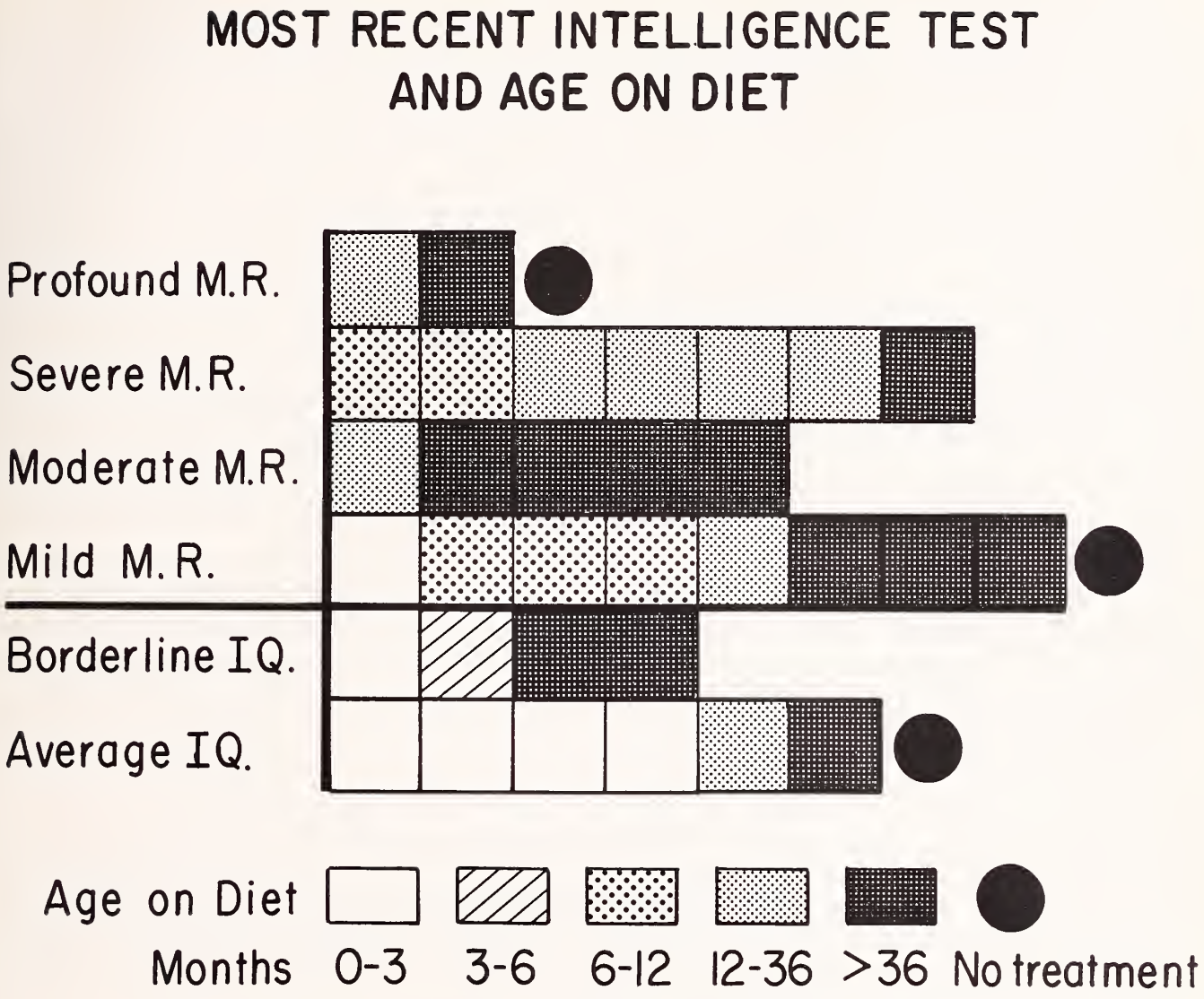


Figure 2

or Stanford-Binet intelligence quotients when they are older. For children of average intelligence, the basal age for the WISC is five years, and for the Stanford-Binet it is two years.

The average age at which the diet was started was 32 months. The greatest age at which a child started the diet was seven years, eight months. Three were started at less than one month of age; two at less than two months; one at less than three months; and five at less than one year. The time on diet ranged from only 6 months to 6 years 8 months, and the average was 39 months. The nine children still on diet have been on it for periods ranging from 12 to 67 months, or for an average of 47 months.

Of the six children placed on the diet at ages under three months, four are of average intelligence; one who was started on it at 11 days is of borderline intelligence; and another started at 45 days of age is moderately retarded. These children have been on the diet an average of 40 months at present. Their most recent I.Q. average of 95 was contrasted with the average pre-treatment I.Q. of 55 in the 12 children who were started on the diet after 40 months of age. The latter group of children were on the diet an average of 28 months before discontinuation. The single child who was five months old when treatment was begun has low borderline intelligence. None of the five children started on diet between six and 12 months of age has average intellectual ability. Two of them are severely retarded, and three are mildly retarded. Eight children were placed on the diet between one and three years of age. Of them, seven are retarded—one pro-

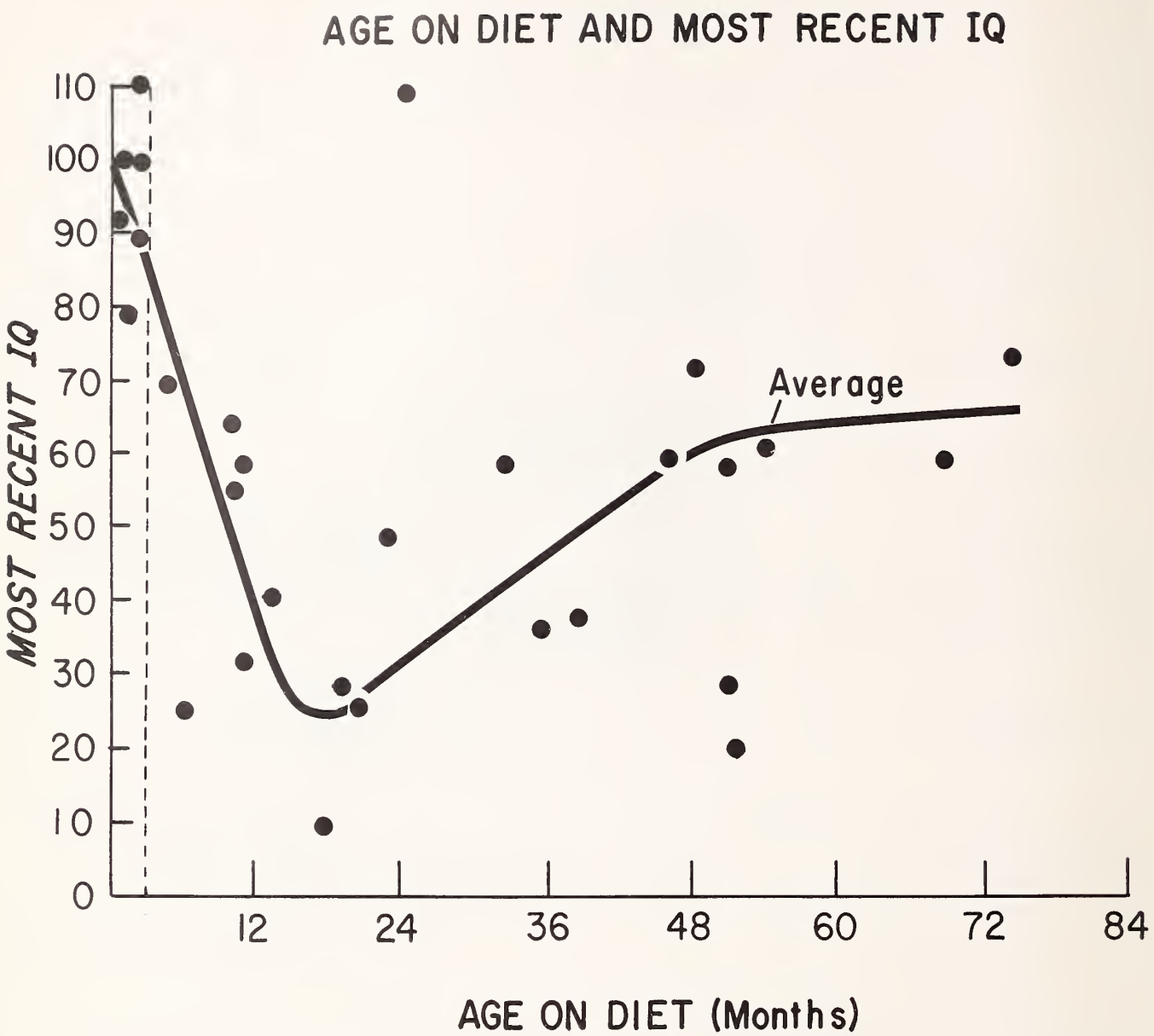


Figure 3

foundly, four severely, one moderately and one mildly. One child who was started on the diet at 26 months of age has average intellectual ability. Of the 12 children started on the diet at ages of more than three years, nine are retarded—one profoundly, one severely, four moderately and three mildly. Two children have borderline intellectual ability, and one has average intellectual ability. The average pre-diet I.Q. for the 35 children was 61 and the average recent I.Q. was 59, reflecting an average loss of 1.9 points. There has been a general downward trend in recent intelligence test results of children treated after three months of age (Figure 3).

Figure 2 graphically shows the most recent intellectual findings in the children who received the dietary treatment, and in the three children who never were put on the diet. Table 2 compares the three children who never received the diet. The first one, K.U.C., was 2¾ years old when he was found to have phenylketonuria, after a newborn sibling was diagnosed in 1965. He had average intelligence, and it was decided that he should not be treated. He continues to have average intelligence without dietary treatment. The second child, O.C., was seven years old and mildly retarded at the time of diagnosis, and he remains mildly retarded off diet. The third child, B.C., was 11 years old and profoundly retarded when she was discovered to have phenylketonuria.

Table 3 provides a statistical contrast between the children who were treated before and after three months of age. The test-retest reliability of the intellectual measurements used was .90 for the six children in group 1, and .83 for group 2. The first test result was thus highly predictive of the most recent test result for both groups. Only seven children in the second category had Stanford-Binet tests for their pre-test intellectual estimate. Thus these findings support the reliability of the other tests that were used in predicting future Stanford-Binet and WISC I.Q.'s. This predictability is most apparent in the six children in the first group whose average age when first tested was only seven months. There is a statistically significant difference between the two groups for each of the five variables listed (p less than .005). The initial and final I.Q.'s of each group were nearly the same. The difference between the most recent average I.Q. of 95.5 for group 1 and 50.9 for group 2 seems to attest to the efficacy of early dietary treatment.

DISCUSSION

In our series of children, the high correlation between pre-diet and most recent I.Q.'s indicated no loss of intelligence as a result of the diet. One could also state that without the diet there might possibly have been a decrease in I.Q., or perhaps even a gain. The data seem to indicate that early dietary treatment may prevent moderate or severe retardation in children started on the diet at less than three months of age. The difference between the ultimate average I.Q. of 95.5 for group 1, and 50.9 for group 2 seems to attest to the efficacy of early dietary treatment. The sample is too small to permit conclusions, and the comparison suffers, as do many others of this kind, from sampling bias. The children in group 2 were a retarded population when discovered to have phenylketonuria. The children in group 1 were diagnosed in the general population from routine screening tests as infants, and their ultimate intelligence without treatment is unknown. Studies which correlate time on the diet to eventual I.Q. may fail to note that the older and usually retarded children resist the diet and as a result are not kept on the diet for a long period. The lack of I.Q.-change noted in older children on the diet, as seen in this sample, may influence a clinic in its decision to stop treatment.

In an analysis of a study showing benefit from the diet when instituted early, Birch has pointed out these problems of selection among treatment groups. Older children who are treated are ones who have been found to be

TABLE 2

THREE PKU CHILDREN NEVER ON TREATMENT

Name	First Psych. Test (mos.)	IQ-DQ	Test	Last Psych. Test (mos.)	IQ-DQ	Test	Test Difference
KUC	33	110	s	57	112	w	+2
OC	92	56	w	116	56	w	0
BC				136	7	c	—

TABLE 3

COMPARISONS OF CHILDREN TREATED BEFORE AND AFTER THREE MONTHS OF AGE

	Early Treatment Group (N = 6) 1		Late Treatment Group (N = 26) 2		
	$Mean_2$	S.D.	$Mean_1$	S.D.	t
Age starting diet	1.67	.82	38.62	27.19	6.91
Age first psych. test	7.00	3.10	45.69	25.92	7.39
Age last psych. test	35.50	16.50	95.15	34.62	6.24
First IQ/DQ	95.17	18.92	53.00	20.76	4.82
Last IQ/DQ	95.50	11.10	50.89	23.07	6.97

phenylketonuric during a workup for mental retardation, and therefore they have lower I.Q.'s.[23] Transient hyperphenylalaninemias are not likely to masquerade as PKU in the older child. In our group, the absence of any children of superior intellectual ability and the presence of two children of below average ability who have been on the diet from an early age may be artifacts of our small sample. If not artifactual, this would support theories suggesting a deleterious effect on the phenylketonuric fetus, during the pregnancy, which cannot be rectified by diet.

The theory that poor dietary control may cause transient high blood levels and consequent intellectual impairment is difficult to counter. Strict, stable dietary control of all patients has not been possible in this Clinic. In our experience, control becomes poorer as the child grows older. Parents become lax, and the child can get restricted food on his own. Current Clinic policy is to discontinue diet therapy at six years of age. We have published evidence showing that no ill effects occurred after discontinuation of the diet in seven patients, and that disposition may actually have improved when the diet was stopped.[40] This has been criticized because of the small number of patients, their short follow-up and inadequate delineation.[41]

The metabolic aspects of phenylketonuria are as yet unresolved. There is a spectrum of expression of the disease and possible metabolic modifying factors. The effects of the diet have not been established. The present attitude of this Clinic toward the diet is neutral as we await the reports of the National Collaborative Study. Until the efficacy of the diet has been established, care should be taken to differentiate hyperphenylalaninemia from "true" phenylketonuria in all patients. All children with hyperphenylalaninemia should be referred immediately to an appropriate center for a diagnostic workup. This should include quantitative tyrosine and phenylalanine levels, urine chromatography and a phenylalanine-tolerance test. The need for continued dietary therapy should be reestablished after the child has been on the diet between 90 and 100 days, by an appropriate challenge. Delay in initiation of the diet may have a deleterious effect on future intellectual ability of the child with phenylketonuria.

SUMMARY

Recent advances in the knowledge of phenylketonuria have called for adjustments in our concepts regarding the etiology of the disease and the effects of dietary treatment. Controversy has raged and has stimulated a Collaborative Study of Children Treated for PKU in which the University of Iowa Child Development Clinic, and therefore the State of Iowa, are participating. A review of the cases in the Iowa Child Development Clinic reflects the problems of diagnosis and therapy. In our experience, the diet has not changed the I.Q. It is possible that the relationship between length of dietary treatment and intelligence, and the higher I.Q.'s of children who were treated early may have been on the basis of selection. The present attitude of the Iowa Child Development Clinic towards the efficacy of the low-phenylalanine diet is neutral. It is possible that Iowa children are being inadequately screened for phenylketonuria. Care must be taken to differentiate hyperphenylalaninemia from phenylketonuria, not only because of the possibility of misdiagnosis but because of the dangers of the low-phenylalanine diet.

ACKNOWLEDGEMENT

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Why Intelligent Young People Take Drugs

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A GREAT DEAL HAS BEEN WRITTEN about the risks involved in drugtaking. Nevertheless before delving into the motives behind the use of drugs, I should like to review those risks and compare them with the physiological and psychological effects which make each of these substances attractive to some of our young people.

Here are the risks. Heroin is an addictive drug. A few injections may lead to a lifetime of alternation between a trance-like state and a frenetic search for the drug to forestall or offset painful withdrawal symptoms. A single dose of LSD may cause a paranoid psychosis in a person with no history of previous emotional instability. Such a psychosis can recur even though the drug is not ingested again. Rarely, LSD causes excitment leading to violent action which may be destructive to others or to oneself. Sometimes this results from paranoid delusions which stimulate a compulsion to destroy before being destroyed, and sometimes from a sense of grandiosity which leads the drugtaker to demonstrate his indestructibility by leaping from a cliff or from a window. Chromosomal or brain-cell damage may result from LSD. This possibility has not been conclusively proved, but the evidence is steadily mounting.

The risks of marijuana smoking are less clear-cut and dramatic, but nonetheless real. They are: first, arrest and possible imprison-

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ment, with damage to reputation in either case; and second, the possibility that the substance smoked is not marijuana but is another substance entirely or is marijuana laced with a much more dangerous hallucinogen such as DMT. A third risk comes from associations with pushers who are anxious to move users on to addictive and more expensive drugs. In addition, chronic pot smokers usually are trying to solve emotional problems of some sort by this futile means, and are avoiding sources of help which could be effective. Finally, one runs the risk of suffering an acute panic attack after using marijuana. For unknown reasons, some individuals are abnormally sensitive to the drug and may react to a single "joint" in this way.

Methedrine, a stimulant which has a chemical formula like that of benzedrine and is known in the lingo of the drugtaker as "speed," can cause a toxic psychosis characterized by paranoia and hallucinations. Once taken, it can produce a compulsion to continue injections for a number of days on end, resulting in loss of sleep and appetite. The consequent exhaustion and malnutrition account for many of the ill effects of this drug. The depression which often follows "coming down off" the drug may last for months.

The risk from glue sniffing, inhaling lighter fluid or the aerosol contained in glass-chilling devices, is the probability of destructive organic damage to various vital organs such as the brain, kidneys and liver. In addition, a number of the compounds contained in these substances cause depression of the respiratory center and can bring about a fatal cessation of breathing.

There are some advantages to drugtaking. Heroin causes a numbness and neutrality, accompanied by a slight euphoria. LSD can bring about a succession of colorful images and visions, as well as impart a temporary feeling of loving-kindness and trustfulness. Although it has not been proved to increase powers of creativity or the ability to learn and produce effectively, it does give one the impression of being extraordinarily talented and productive. This illusion is pleasantly satisfying to some people, even though they may recognize it as unreal.

Methedrine causes a "rush." This sudden sensation of excitement and suddenly available energy is said by some people to resemble an orgasm of the total body. This drug can also cause a restlessness and talkativeness which are pleasantly exciting to some. Marijuana relaxes the smoker, slows down his sense of time, produces a slight euphoria, and gives him an impression of a new depth in his communication with the others with whom he is sharing the experience. Glue sniffing may lead to a state of excitement, but more often to an altered state of consciousness similar to a trance. The sniffer feels close to death, and afterward may describe a "delicious sense of terror" which he found so attractive that he may wish to re-experience it time and again.

It seems clear that any person capable of reasoning logically would understand that the dangers—most of them of a permanent or long-lasting nature—strongly outweigh the advantages, most of which are short-term and illusory. Yet we are still faced with the fact that a significant portion of our highly intelligent and supposedly reasonable high school and college students choose to take the high risk for the small advantage. Such an irrational decision usually stems partly from unconscious motives, and although it may be unreasonable in an intellectual sense, it may be understandable when seen as a decision that was the product of buried emotions. The intelligent person who opts for drugtaking is influenced by some factors he is cognizant of, but also by ones of which he is unaware. His spoken arguments in defense of his behavior are usually only a small portion of all that actually had a role in the total decision-making process. Taking into consideration all motives, both conscious and unconscious, it is possible to divide drugtakers into three broad classes, and then to subdivide each class into smaller groups of people who are influenced by more specific secondary motives. The three general categories are: The Experience Seekers, the Oblivion Seekers, and the Personality Change Seekers.

THE EXPERIENCE SEEKERS

The vast majority of youthful drugtakers fall into the Experience Seeker group. They are the experimenters—those who enjoy meeting challenges and taking risks. The danger of being arrested, of becoming addicted or even of dying is fascinating and attractive to them. In many of our well-to-do communities so much is

provided by affluent parents that most of the formerly challenging forms of excitement are gone. Young people gather during leisure time and try to overcome their boredom by seeking adventure "on the drug scene," and demonstrate their courage and strength by defying authority and using dangerous drugs. Sometimes it is a lonely outsider who wants to be popular and admired, and for that reason searches out the sources of supply and distributes marijuana. Almost as often, however, it is the already-popular leader of the group who "turns on" others and appears to derive a strange inner gratification from doing so.

Most of the glue sniffers are in this Experience Seeker category, but their motivation differs from that of pot smokers. They and most of the methedrine takers are young (usually of junior-high-school age). They are lethargic and emotionless—describing a coldness which frightens them. Drugs provide sensations and give those individuals reassurance about their capacity to experience emotion. The methedrine "rush" or the fright produced by a close brush with death from inhaling the fumes of glue provides a shock to the nervous system which temporarily lifts them out of their unfeeling state.

Many experience seekers are motivated by rebellion. They feel more anger and resentment against authority than do average adolescents. Because of real or fancied rejection by their parents, they have accumulated great stores of hostility which they may not be aware of but which they may express by breaking rules. This defiance is gratifying because it upsets their elders and also elicits attention from them. An angry parent may not be as enjoyable as a loving one, but he is more satisfying than a totally unresponsive one. An additional and more self-defeating satisfaction derived from being caught breaking the law is the retaliative pleasure gained from bringing disgrace upon one's family name, and this constitutes a frequent unconscious motive for involvement with drugs.

There are some students who take drugs to point out what they consider to be the older generation's unwarranted concern and alarm about the harmfulness of drugs. They feel that the current penalties for possession of marijuana, for instance, are far too severe, and that the scare techniques that are used to convince the public that it is a dangerous drug are prime examples of the hypocrisy that they purport to find in all aspects of our society. The public smoke-ins, during the course of which pot is openly smoked and even offered to the police, are ways of mocking the official attitude about enforcement. They are ways of showing the world that marijuana is a harmless drug and of demonstrating that court officials, realizing this, will not impose the required penalty on offenders. As indicated earlier, marijuana is not a harmless drug, and although the police usually refrain from arresting blatant users at smoke-ins, they have, on occasion, brought users to court and in some instances jail sentences have resulted.

A few experience seekers take drugs in search of meaning. These individuals mistakenly believe that in the midst of the altered state of consciousness induced by hallucinogenic drugs, they will be able to discern the key to the mystery of life. They anticipate a vision of some sort, as a result of which they may be able to discover a reason for being on earth, and in this way establish a commitment to a goal or occupation which has been missing in their drab lives up to that point.

THE OBLIVION SEEKER

Unlike the experience seekers, who usually take drugs only for short periods, the oblivion seekers use them consistently for a year or more. They find the drugged state of mind a pleasant respite from the stresses of the world around them. The heroin addict usually is a member of a low socio-economic class, and has obvious and very severe stresses from which he seeks relief through the use of narcotics. His drugtaking is understandable on a rational level, and the difficulty he has in keeping off the drug when he returns to his stressful environment after a period of forced withdrawal seems comprehensible. But the use of LSD and other hallucinogens by young people from middle and upper class families, as a means of seeking oblivion, is perplexing. The pressures to which they have been subjected by their families, their schools, and their communities do not seem to the rest of us to be sufficiently intolerable to justify the risks involved in the chronic use of drugs.

In attempting to explain their decision to "turn on," these young men and women point

to the injustices perpetrated by our society. They claim to be disgusted with the materialism, competitiveness, and hypocrisy which they see in their elders. They agree with the declaration that William Sloane Coffin, a chaplain at Yale, has made so often: "The guy who wins the rat race is still a rat." Many of them are unable to make their personal declarations of independence without using drugs to dull their senses, to salve their consciences, and to bathe them in a temporary sense of well-being which lets them enjoy living in the grimy world which they have made for themselves outside regular society. In many ways, of course, their complaints about today's world are justified, but we have always been an idealistic nation, and our professed goals in the areas of freedom and justice have stayed just beyond our grasp. It does not follow, however that we should give up our goals or stop striving toward them. If we are to make progress towards our objectives, we can ill afford to lose permanently to the drop out culture what has been estimated to be as many as 300,000 of our young people, many of whom are the most creative and imaginative among us. We need their help in building a better and more just world.

Actually, most of those who purport to be "turning on" in order to "drop out" are burdened by feelings of incompetence and inadequacy. It is not that they do not believe in success as defined by American society. Rather, they do not believe that they personally can achieve that success. Their outwardly expressed feelings are those of contempt, but their underlying ones are those of fear. Some certainly are relatively incompetent and inadequate, and could not live up to their own expectations or those of their parents no matter how hard they might strive to gain a place for themselves in this competitive world. For them, the illusory transcendence which they achieve through drugs and which seems to tune them out of this world and into the psychedelic one is refreshing indeed. Temporarily, they feel omnipotent and free from fears of failure, conscious or unconscious, which dogged them before their drug experience, but their euphoria and illusions of power do not help them find goals that are realistic or to become reconciled to the limited rewards which come from attaining them.

Some Oblivion Seekers are victims of the American system of higher education which has become considerably narrower and less flexible in the past two decades. Ever since World War II and the G.I. Bill of Rights, more high school graduates have gone to college than ever before—over 50 per cent last year as compared with about 10 per cent in the thirties. Many young people with no intellectual curiosity or desire to enter a graduate school now find themselves trying to adjust to the social and academic demands of a liberal arts college simply because the chance to attend one has been given to them and pressure has been put upon them by their high schools and by their parents to avail themselves of this "great opportunity." Some of the high school seniors score high on intelligence tests, but their interests and aptitudes are in arts or mechanics rather than in more theoretical subjects. They simply are not equipped to become successful liberal arts students. Many could happily apply themselves to courses in graphics, drama or auto mechanics, but learning a foreign language or analyzing poetry is beyond them. Because liberal arts education has achieved so much status in today's world, these students find themselves in an alien atmosphere when they reach college, and they seek escape and solace in the drug world of the dropout.

One small subgroup in the Oblivion Seeker category is the depressed young person whose search for oblivion is partly determined by his depression. Because such an individual feels less reason to live than do other young people, he takes greater risks and is more likely to become the accidental victim of a fatal overdose. A tragic example of this type was the college freshman who enjoyed sniffing lighter fluid until he became unconscious. He told his roommates that he was trying to experience as many of the feelings of death as possible without actually dying. Eventually he was found dead in his car with a hose leading from the exhaust pipe to the front seat. He had one hand on the ignition key and the other on the door handle. His underlying depression and unconscious wish to die had prevailed.

THE PERSONALITY-CHANGE SEEKER

The individual who is attempting to bring about a basic change in his personality by taking drugs deserves more of our concern than

those in the other two categories because he is most often the one who becomes addicted or is permanently incapacitated by drug use. He feels compelled to combine drugs and to escalate dosage as his disappointment and frustration mount and the results he is looking for do not come. Individuals who are psychiatrically ill—schizophrenics, manic-depressives, psychopaths, and severe neurotics—sometimes drift about on "the drug scene." They are usually quickly identified as "kooks" or "freak outs," but their influence on some neophytes is considerable, and their deterioration under the influence of the variety and quantity of drugs that they inject or consume is tragic. They are probably responsible for most of the acts of violence that occur in drug communities.

There are a number of young people who feel (usually on very little evidence) that they are sexually abnormal, and believe that some drug will act as an aphrodisiac and thus enable them to engage in normal sexual relationships. Despite the extravagant claims made by some LSD enthusiasts, no known drug has such an effect. The recent trend on the part of the young toward beginning sexual intercourse at an earlier age has put added pressure on teenagers for performance before many of them are physically or emotionally ready for it. Their consequent failures have led some of them to reach false conclusions about their impotence or frigidity. Such fears have caused a few to start on a futile search for a drug which can make sexually mature men and women out of them in a moment.

Much has been said and written about the alienated student—and indeed with good reason, for there are many of these desolate individuals on and around our college campuses. They are lethargic, apathetic, and unmotivated. While some blame society for not inspiring them, there are many others who recognize their emptiness within as flaws in their own characters. Drugs seem to them a way to fill up the hole. A few hope that a drug will actually change them, but many more are convinced that taking drugs will make friends for them. People taking LSD or smoking pot together are under the impression that they communicate more meaningfully and as a result they believe that happy and fulfilling alliances will follow such a session. Non-participant observers at such gatherings report that very little is said there. The individuals involved spend most of their time giving subjective descriptions of the effects of the drug as it works on them, but in general the smokers are just as isolated as at other times. Emotional closeness under the influence of drugs seems to be another of the drugtakers' many illusions but nevertheless the temporary pleasure gained from the illusion keeps many "on the drug scene" even after they have given up hope of achieving any permanent relief from their loneliness through the magic powers of a drug.

One additional reason for chronic use of drugs to alter personality which some young people claim is that they are imitating the use of tranquilizers by their elders. The expectation that a happy equilibrium can be maintained through the continual use of a drug is certainly indicated by the number of physicians who freely prescribe these mood-stabilizers. Undoubtedly, this leads a few of the young to search for similar peace of mind from drugs of their own choosing.

REMEDIES

Certain measures could go far toward remedying the present situation. Certainly control of the drug supply should continue and should be improved. Availability has a direct correlation with usage. When the supply is plentiful, pushers reach out for more customers and extend their territory. While enforcement of the present laws against sale and possession serves as a deterrent to drugtaking, the fact that some laws impose penalties seemingly out of proportion to the seriousness of the offense contributes to a disrespect for and a disregard of the law. Along with continuing their attempts to cut off sources of supply, the legal agencies should carefully reexamine the laws—particularly those penalizing the possession and use of marijuana. The younger generation tends to throw out the baby with the bath water. If young people find inequalities or inaccuracies in one small area, they will disbelieve totally and fail to heed other warnings that are well founded.

Further research both on the short- and long-term effects of marijuana and on the possible therapeutic uses of LSD is badly needed. It should be encouraged so that our present suspicions about the injurious effects of both drugs can be proved or disproved by respon-

sible scientists. Only then shall we be able to provide evidence that will be convincing to the young, intelligent drugtaker.

Educational programs help. They spell out what we do know of the risks involved for those who are contemplating taking drugs, and they also satisfy the curiosity of a few who may not need to try out drugs once they have learned everything there is to know about them. More important than drug education programs for students is the instruction of faculty and administrators in the basic fundamentals about commonly available drugs. Young people who are indecisive will turn to respected elders for advice, and then if they find ignorance or are given false information, they will heed none of the further advice or warnings which may be forthcoming. Any state-, federal-, or school-sponsored education program should enroll teachers, guidance counselors, principals, and even parents.

We can also encourage young people who are seeking a challenge to choose a less-dangerous one than drugs. Work in the Peace Corps, Vista, or local mental hospitals or tutoring programs can be as exciting and as challenging as joining "the drug scene." Choosing such an alternative can have a doubly beneficial effect if the program contributes to the elimination of some of the ghetto conditions that are causative factors in heroin addiction.

Broader mental health facilities can reach those who have personality problems and can provide some effective help which will take the place of the temporary but risky relief afforded by drugs. Finally, a more flexible educational system, such as has been pioneered by the experimental colleges, would go far towards easing the pressure toward conformity that is typical on the average university campus today. As Kenneth Keniston has written in his paper, "Drug Use and Student Values": "Consciousness expansion seems to me not the sole prerogative of psychoactive compounds, but of education in its fullest sense." It is important to find ways and means to keep as many as possible of our highly talented and creative youth within our normal pattern of social and academic life. Many of the factors in today's society which contribute to drugtaking among intelligent young people are unchangeable, but certainly not all of them are.

SUMMARY

High school students take drugs most frequently in order to:

1. Prove their courage
2. Defy authority
3. Attempt to increase sexual desire and performance
4. Obtain a thrill
5. Find the meaning of life.

College age young people take drugs most frequently in order to:

1. Have the experience
2. Reinforce their decision to drop out
3. Communicate better
4. Show up the "irrationality" of the drug laws
5. Find a cure for emotional "hang-ups."

Remedies:

1. Control of the supply
2. Drug education programs
3. Provision of other challenges more constructive and less risky
4. Broadening of educational opportunities.

Familial Incidence of Cancer

The Medical Genetics Section of the Department of Preventive Medicine and Public Health at Creighton University School of Medicine, Omaha, is interested in the study of patients showing an increased incidence of any histological variety of cancer in their families. Of particular interest to the investigators is the cancer-family syndrome, characterized by: 1) increased frequency of adenocarcinoma of all sites, particularly of the colon and endometrium, 2) early age at onset of cancer, 3) increased occurrences of multiple primary malignant neoplasms, and 4) autosomal dominant inheritance.

The initial phases of the investigations of two families have been published (Lynch, H. T., *et al.:* Hereditary Factors in Cancer: Study of Two Large Midwestern Kindreds, ARCH. INTERN. MED., **117**:206-212, 1966).

Physicians with patients known to have a familial cancer background may write to Henry T. Lynch, M.D., associate professor and chairman, Department of Preventive Medicine and Public Health, Creighton University School of Medicine, 657 North 27th Street, Omaha, Nebraska 68131.

The studies will include a genealogical and medical investigation of the entire kindred in each case. In order to facilitate cancer control, all information obtained will be shared with family physicians, and the cooperation of Iowa physicians is invited.



The AMA House of Delegates Took Action on Some Important Issues

At its winter meeting this year, the American Medical Association's 242-member House of Delegates, representing its 185,000 member physicians, carefully considered and took some highly significant action on several major problems facing the people of the United States. Its sessions took place in Miami Beach, December 1-4, and occupied several hours on each of those days.

Each state or territorial medical society is entitled to send one physician to the AMA House of Delegates for each thousand members or fraction thereof; the physicians in each of the U. S. Armed Forces are entitled to a delegate; each of the other federal health services such as the U. S. Public Health Service and the Veterans Administration sends one; and there is one from each of the major medical specialty groups. The AMA delegates from the Iowa Medical Society are Drs. Herman J. Smith and Elmer M. Smith, both of Des Moines, and Dr. L. W. Swanson, of Mason City. The alternate delegate from the IMS to the AMA is Dr. Christian E. Radcliffe, of Iowa City.

Though the physicians who compose the AMA House of Delegates are individualists, the address made to them by the organization's president, Dr. Dwight L. Wilbur, of San Francisco, struck a responsive chord in nearly every one of them. Dr. Wilbur said: "Perhaps our greatest problem is that, in many ways, we in America have tried too hard and succeeded too well. . . . We have progressed so far in so many areas that our people are impatient with the realities of human limitation. They are eager instantly to wipe out poverty, eliminate ignorance, sweep away ill will and violence, and replace jealousies and hate with universal good will. Even the spectre of death itself, some people consider a temporary and stubborn spite to mankind that will be mastered as soon as new organs are developed or transplanted, and new drugs are synthesized."

He asked the medical profession to direct greatest attention to five objectives:

1. Making high-quality health care available to everyone in America at as reasonable an expense as possible.

2. Putting a rein on costs by not sending any patient to the hospital unless absolutely necessary; by keeping the lengths of hospital stays to a minimum; by utilizing extended-care facilities, nursing homes and home-care services, rather than hospitals, as often as possible; by promoting voluntary health and accident insurance; by advocating income-tax credits for health-insurance premiums paid; by insisting upon usual, customary and reasonable fees for physicians in all voluntary and all governmental health-insurance programs, with review and discipline by the profession in all instances where physicians are thought to have overcharged; and by automating laboratory procedures and passing the savings on to patients.

3. Developing some more reasonable and more realistic expectations in the minds of the American people.

4. Maintaining constructive liaison between the medical profession and other groups.

5. Planning for an orderly and enhanced future.

ORGAN TRANSPLANTATION

The AMA House of Delegates adopted a statement on heart transplantation which made these five points:

1. The staff of a hospital or medical center that plans to initiate such a program must have an adequate background in animal research, experience in immunosuppressive therapy and an adequate source of antilymphocyte globulin, and a clinical research program that will enable the staff to follow and evaluate each patient's course.

2. The welfare and safety of each patient must be paramount. This applies to the prospective donor as well as to the prospective recipient.

3. The determination of death becomes highly important. The ability of medical scientists to maintain minimal biologic function for prolonged periods is one of the developments which have made heart-transplantation possible, but it has added to the difficulty of determining the point at which a patient's progress toward death is irreversible—the point after which the heart may be removed.

The determination of death in organ donors must consequently be made by no fewer than two physicians not associated with the surgical team which is to perform the transplant.

4. Heart transplantation cannot be regarded as a promising remedy for heart disease because the number of potential donors will fall far short of the number of potential recipients. Thus the ultimate solution to the problem of heart disease lies in its prevention.

5. The public must be made fully aware of the limitations, as well as the potentialities, of heart transplantation.

The AMA House of Delegates also approved the Uniform Anatomical Gift Act, and asked each state medical society to consider urging its state legislature to adopt it. Under existing law, no one has the irrevocable right to will his or her own body or any parts of it. The heirs can break that portion of the will, if they choose. The Uniform Anatomical Gift Act would protect such bequests, and the measure has the endorsement of the American Bar Association.

SPECIALIST STATUS FOR QUALIFIED GP'S

In recognition of the facts that physicians who engage in general practice—or, as they prefer to say, in family practice—must master as much subject matter and acquire as many skills as do the practitioners of any previously-acknowledged specialty, and that they have just as many or perhaps more innovations and developments to keep abreast of, the AMA House of Delegates approved a set of "Special Requirements for Residency Training in Family Practice" and endorsed the proposal that a Specialty Board for Family Practice be established to conduct examinations and confer specialist status upon the physicians who meet its requirements.

AWARDS FOR POSTGRADUATE MEDICAL TRAINING

The AMA House of Delegates adopted a program under which physicians will receive recognition for continuing their medical training. "A physician may, upon request," the House said, "receive [an AMA] recognition award at the completion of three years of graduate training in AMA-approved programs, or the equivalent in research activity or in educational programs leading to further advanced degrees in medical sciences."

PROPOSED COOPERATION WITH OSTEOPATHS

In an effort to assure provision of the best possible health care to the American people, the AMA House of Delegates, during its meeting in Miami Beach last month, smoothed the way for greater cooperation between doctors of medicine and osteopaths. (1) It invited the schools of osteopathy and their accrediting agencies to consult with the AMA and the Association of American Medical Colleges about standards in medical education. (2) It suggested that AMA-approved internships and residencies be opened to qualified osteopathic graduates. (3) It requested specialty boards to declare their intent to permit osteopathic graduates to take their examinations. (4) It suggested that accredited hospitals may accept qualified osteopaths on their medical staffs (with determinations to be made by the medical staff of each hospital, regarding individual osteopaths). (5) It suggested that county and state medical societies make whatever changes may be necessary in their articles of incorporation and by-laws to facilitate the admission of qualified osteopaths to membership in their organizations, and thus to make them eligible for AMA membership.

MISCELLANEOUS ACTIONS

There were actions regarding several other matters of widespread interest:

The AMA House of Delegates resolved that "The AMA again urges its members to play a major role against cigarette smoking," and that "The AMA takes a strong stand against smoking by every means at its command."

The House encouraged the American Association of State Highway Officials and the Federal Highway Administration to work toward the adoption of the International System of Highway Signs, which avoids the use of language in order to make the visits of foreigners to the United States "as safe and pleasant as possible."

It also urged constituent medical societies in states where existing laws do not now permit minors to consent to treatment for venereal and other communicable diseases "to seek enactment of such legislation."

The Treatment of the Anxious Patient

R. PAUL PENNINGROTH, M.D., and
GARFIELD TOURNEY, M.D.
Iowa City

ANXIETY AND DEPRESSION are among the commonest symptoms of emotional disorder that a physician observes in his practice. Diagnostic confusion between anxiety and disorders of the cardiorespiratory, gastrointestinal and skeletomuscular systems and metabolic diseases frequently occur. With a knowledge of the varied clinical features of anxiety, the physician can usually arrive at a proper diagnosis of anxiety without extensive physical and laboratory studies, and can begin to apply appropriate treatment to reduce the patient's symptomatology.

Subjectively and physiologically, anxiety resembles fear. Fear is related to a real danger, but anxiety involves no realistic danger and the patient has difficulty in explaining any causes for it. A certain "normal" anxiety is felt by many individuals in any disturbing life situation such as the examinations that students undergo. Much of this "normal" anxiety provides motivation for mastery and achievement, and thus can be a real stimulus for productivity. A third type of anxiety is that which may be either acute or chronic, and is an unconscious reaction to danger. The individual has a feeling comparable to fear, but cannot account for it on the basis of any realistic external stress. A phobia is a specific anxiety related to some object or situation such as a fear of elevators or high places. The phobic individual shows no anxiety symptoms until he is confronted with the disturbing situation. Panic is an extreme form of anxiety that often precedes a personality breakdown and psychotic behavior.

Dr. Penningroth was a resident and Dr. Tourney is a professor in the Department of Psychiatry at the U. of I. College of Medicine. Dr. Penningroth is now serving with the United States Army.

MANIFESTATIONS OF ANXIETY

Anxiety presents both psychological and somatic components, and patients may emphasize one over the other. The psychological symptoms include a feeling of apprehension, uneasiness and dread about an impending disaster such as loss of control or even death. Nervousness, along with an anticipation of danger, and a desire to escape from some situation are common psychic complaints. The somatic symptoms involve a number of organ systems of the body, and include such phenomena as palpitation, flushing or pallor, tachycardia, elevation of systolic blood pressure and preoccupation with cardiac pain. Skeletomuscular symptoms include fatigue, weakness, stiffness, neckache, backache, tension headache, facial tics, stuttering, clumsiness of the hands, fine tremor and increased tendon reflexes. Gastrointestinal symptoms may occur in either the upper or lower tracts, and include nausea, anorexia, gas, eructation, heartburn, vomiting, dry mouth, a peculiar epigastric pressure, diarrhea and constipation. A loss of appetite and consequent weight loss may occur in some individuals, and others have a marked increase in appetite, with resulting obesity. Genitourinary symptoms are reported with increased frequency, and in particular there is a sense of pressure in the area of the bladder. Excessive perspiration and cold and clammy hands are often complained of. Sleep disturbances are usually related to anxiety, and are characterized by difficulty in falling asleep and frequent awakening during the night, often caused by frightening dreams or nightmares. The anxious patient may have great difficulty in awakening later in the morning, and dreads getting out of bed and facing the responsibilities of the day. The depressed patient usually can fall asleep without great difficulty, but awakens early in the morning and is most depressed at that time.

Many different types of symptoms of emotional disorder are associated with anxiety, and these include a difficulty in concentrating, depression, agitation, withdrawal, fatigue, hypo-

chondriasis and other neurotic symptoms such as obsessive-compulsive traits. Occasionally the anxious patient is preoccupied with suicide, but when the symptom is primarily a manifestation of an anxiety reaction rather than of depression, the risk of suicide is minimal. The depressed patient should be regarded as a serious suicidal risk until proved otherwise.

DIFFERENTIAL DIAGNOSIS OF ANXIETY

A wide variety of psychiatric and physical disorders show anxiety, and thus the problem of differential diagnosis may be a difficult but an important one. Anxiety symptoms occur in all types of psychiatric disorders, particularly the psychoneuroses, schizophrenia, involutional depression and manic depressive disease. In personality disorders, when the patient's acting out of conflicts is impeded, anxiety commonly occurs. It therefore is important that even when anxiety has been recognized as a psychiatric symptom, the underlying disorder needs to be diagnosed. The treatment of anxiety will vary depending upon the patient's basic disorder. For example, the anxiety symptoms may be predominantly a manifestation of an anxiety reaction, which is a type of psychoneurosis. In that case a minor tranquilizer is indicated, along with psychotherapy. If the anxiety were a component of schizophrenia, one would also see a thinking disorder, inappropriate affect, and often delusions and hallucinations. Here one would use a major tranquilizer, particularly one of the phenothiazines. Anxiety is commonly associated with the depressive illnesses, and here the core illness, depression, needs to be treated with antidepressive agents such as imipramine (Tofranil), or amitriptyline (Elavil).

Hyperthyroidism is one of the most important medical disorders that systematically mimics the anxiety reaction. Anxiety symptoms that may be confused with hyperthyroidism include apprehension, moist palms, tachycardia, elevated systolic blood pressure, palpitation and diarrhea. Often a situational stress such as the death of a family member or loss of a job may precipitate hyperthyroidism as well as anxiety symptoms. In these cases, tests of thyroid function help in finalizing the diagnosis.

Patients with cardiac disease are often mistakenly thought to have anxiety states. Coronary disease, paroxysmal atrial tachycardia, cardiac asthma or premature ventricular contractions can simulate the anxiety attack, and anxiety symptoms can exaggerate underlying cardiac pathology. Asthma and anemia may at times be confused with anxiety. The fatigue of generalized muscle tension may be due to Addison's disease, but attributed to anxiety. Many drugs, particularly amphetamines and caffeine, may produce symptoms of anxiety. Anxiety manifestations seen with the menopausal syndrome often respond to hormonal treatment. Anxiety may be a prominent symptom in the initial states of cerebral arteriosclerosis, and here the anxiety is often related to the patient's awareness that there is a deficiency in his overall intellectual functioning. Differentiation is based on symptoms of chronic brain disorder such as loss of recent memory, impaired judgment, difficulty in concentration, evidence of intellectual deterioration and physical signs of arteriosclerosis.

It is important to differentiate the anxiety reaction from the various depressive illnesses, particularly agitated depression. The patient without a neurotic history in whom anxiety develops in middle or later life should be suspected of having an agitated involutional depression. At times the depression is difficult to determine in face of the agitation or emphasis on somatic symptoms. The depressed patient focuses upon his worthlessness, guilt and lack of pleasure in living. The anxious patient may feel inadequate, but he lacks the feelings of hopelessness and is capable of enjoying life. The depressed patient usually has a sleep disturbance characterized by early-morning awakening, whereas the anxious patient has trouble falling asleep. In the frequent atypical forms of depression, there is considerable emphasis on somatic complaints and fatigue, rather than on depressive symptoms. Suicidal preoccupation and risk occur with depressions, but they are uncommon in anxiety states.

CAUSES OF ANXIETY

Emotional disorders are interpreted in terms of current situational factors in the patient's life, as well as his overall personality development. Early life experiences that can predispose one to the development of anxiety include difficulties centering around early interper-



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Warnings—Watch for the earliest manifestations of thrombotic disorders (thrombophlebitis, cerebrovascular disorders, pulmonary embolism, retinal thrombosis); if present or suspected discontinue the drug immediately.

British studies reported in April 1968[1,2] estimate there is a seven- to tenfold increase in mortality and morbidity due to thromboembolic diseases in women taking oral contraceptives. In these controlled retrospective studies, involving 36 reported deaths and 58 hospitalizations due to "idiopathic" thromboembolism, statistical evaluation indicated that the differences observed between users and non-users were highly significant. The conclusions reached in the studies are summarized in the table below:

Comparison of Mortality and Hospitalization Rates Due to Thromboembolic Disease in Users and Non-Users of Oral Contraceptives in Britain.

Category	Mortality Rates		Hospitalization Rates (Morbidity)
	Age 20-34	Age 35-44	Age 20-44
Users of Oral Contraceptives	1.5/100,000	3.9/100,000	47/100,000
Non-Users	0.2/100,000	0.5/100,000	5/100,000

No comparable studies are yet available in the United States. The British data, especially as they indicate the magnitude of the increased risk to the individual patient, cannot be applied directly to women in other countries in which the incidences of spontaneously occurring thromboembolic disease may differ.

Discontinue medication pending examination if there is sudden partial or complete loss of vision, or sudden onset of proptosis, diplopia or migraine. Withdraw medication if papilledema or retinal vascular lesions are found.

Since the safety of Ovulen in pregnancy has not been demonstrated, it is recommended that pregnancy be ruled out for any patient who has missed two consecutive periods before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule the possibility of pregnancy should be considered at the first missed period.

A small fraction of the hormone agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. The long-range effect to the nursing infant cannot be determined at this time.

Precautions—Pretreatment physical examination should include special reference to the breasts and pelvic organs, and a Papanicolaou smear.

Endocrine and possibly liver function tests may be affected by Ovulen. Therefore, it is recommended that such tests if abnormal be repeated after the drug has been withdrawn for two months.

Pre-existing uterine fibromyomas may increase in size under the influence of progestogen-estrogen preparations.

Because these agents may cause some degree of fluid retention, conditions which might be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation.

In breakthrough bleeding, and all irregular vaginal bleeding, consider nonfunctional causes. Adequate diagnostic measures are indicated in undiagnosed vaginal bleeding.

Carefully observe patients with a history of psychic depression and discontinue the drug if severe depression recurs.

Any possible influence of prolonged Ovulen therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study.

A decrease in glucose tolerance has occurred in a significant percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be observed carefully while receiving Ovulen.

Because of the effects of estrogens on epiphyseal closure Ovulen should be used judiciously in young patients in whom bone growth is not complete.

The age of the patient constitutes no absolute limiting factor, although Ovulen therapy may mask the onset of the climacteric.

The pathologist should be informed of Ovulen therapy when relevant specimens are submitted.

Adverse Reactions—A statistically significant association has been shown between use of oral contraceptives and the following serious adverse reactions: thrombophlebitis, pulmonary embolism.

Although available evidence is suggestive of an association, such a relationship has been neither confirmed nor refuted for the following serious adverse reactions: cerebrovascular accidents, neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis.

The following adverse reactions are known to occur in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea during and after treatment, edema, chloasma or melasma, breast changes (tenderness, enlargement, secretion), change in weight, changes in cervical erosion and cervical secretions, suppression of lactation when given immediately post partum, cholestatic jaundice, migraine, allergic rash, rise in blood pressure in susceptible individuals, mental depression.

Although the following adverse reactions have been reported in users of oral contraceptives, an association has been neither confirmed nor refuted: anovulation post treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme and nodosum, hemorrhagic eruption, itching.

The following laboratory results may be altered by oral contraceptives: hepatic function: increased sulfobromophthalein and other tests; coagulation tests: increase in prothrombin, Factors VII, VIII, IX and X; thyroid function: increase in PBI and butanol extractable protein bound iodine, and decrease in T^3 uptake values; metyrapone test; pregnanediol determination.

References: 1. Inman, W. H. W., and Vessey, M. P.: Brit. Med. J. 2:193-199 (April 27) 1968. 2. Vessey, M. P., and Doll, R.: Brit. Med. J. 2:199-205 (April 27) 1968.

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sonal relationships within the family. A definite predisposition to neurosis occurs with a frustration of the individual's basic dependency needs, punitive habit training, various types of psychological trauma, threats regarding sexuality, and overprotection or rejection by parents. Other factors include problems centering around repressed rage and hostility, the development of a severe conscience and sense of guilt, and problems in identity. Many current life situations contribute to the development of anxiety. The everyday stresses for the sensitive individual take on great magnitude, and what may appear normal for one person symbolizes for the neurotic many of the intense conflicts of his early life. The normal individual adapts to the stresses of life. The psychoneurotic exhibits anxiety symptoms in response to such stresses. A loss of a love object or a loss of prestige and self-esteem frequently contributes to the development of anxiety, as well as to the development of depression. Physical illness can frequently lead to anxiety situations. Sexual frustration can mobilize aggression or increase dependency needs, and these conflicts can lead to anxiety symptoms. Many situational factors can mobilize a feeling of guilt regarding sex and hostility, of which anxiety may be the manifest component.

Along with the subjective psychological state of the patient, there are many physiologic components of anxiety. It is also well recognized that anxiety can be approached therapeutically with psychological and physiologic techniques (mainly drugs that alter the physiology), and that both of these approaches have important roles in treatment. Life experiences are perceived as sensory input passing through the reticular activating system and eventually reaching the cerebral cortex, which has intimate connections with centers related to emotional responsivity such as the rhinencephalon and the hypothalamus. Autonomic responses are mediated through the hypothalamus and can account for many of the disturbances seen in the anxiety state involving the cardiorespiratory, gastrointestinal and skeletomuscular systems. Tranquilizing drugs which reduce anxiety appear to work primarily on the reticular activating system, the rhinencephalon and the hypothalamus.

INITIAL PATIENT EVALUATION

The physician's initial contact and interview is of great importance for understanding the patient with anxiety. In it he establishes rapport, elicits pertinent information, makes a tentative clinical diagnosis, searches for causal factors and sets the pattern for future sessions. A physical examination is essential, and must be done to rule out or evaluate the presence of organic disease. A thorough physical examination and appropriate laboratory studies help the patient establish rapport with the physician, too. The patient realizes that a comprehensive medical approach is being made to his problem, and that he is not being regarded merely as nervous or voicing imaginary complaints.

One usually can begin an initial interview with open-ended questions such as: "What is the thing that bothers you most?" or "Tell me about the problems that led to your coming to see me." During a period of from five to 10 minutes, in which the patient is answering open-ended questions, he can ventilate his feelings and present his problems in a manner that the physician can find meaningful. His manner and behavior in presenting his problems, and his nonverbal communication of affect and feelings can have great diagnostic significance. The answers to the open-ended questions should give clues to areas of conflict and difficulty, and more specific questions can then be presented to the patient. As the history unfolds and it is clear that the patient has anxiety symptoms, one should try to discover whether there are any certain and regular relationships between the symptoms, life stresses or subjective feeling states. The patient who complains of a deep chest pain radiating down the left arm, beginning with exertion and subsiding with rest, evidences the likelihood of an organic involvement. Pain described as diffusely spread over the chest and epigastrium and as having no relationship to exertion or rest, but rather to stressful life situations; such as a visit with the patient's mother; implies emotional conflict related to the mother.

TREATMENT APPROACHES

Broadly speaking, one can say that two types of therapy are available, psychotherapy and medications. These may be used separately or

in combination. One must recognize that there are millions of patients, representing by far the largest segment of the anxious population, who have neither the motivation, intelligence or resources to benefit from prolonged formal psychotherapy carried out by a psychiatrist. These individuals can be helped through supportive psychotherapy and medications at the hands, chiefly, of physicians. With an understanding of the patient's needs and problems, supportive psychotherapy aims at a limited goal of symptom relief of anxiety through guidance, persuasion, and manipulative and cathartic techniques. The effectiveness of any psychotherapy is greatly augmented by the use of tranquilizers for the relief of anxiety symptoms. In this presentation we shall attempt to describe a technique that can readily be applied by the physician in his treatment of the anxious patient.

Having established the diagnosis of anxiety neurosis, the doctor should present a plan of treatment to the patient. Usually such people need to be seen from one to four times per month, depending on their levels of anxiety, and they usually can be treated in visits of five to 15 minutes' duration. At the follow-up interviews the physician's immediate concern is with recent symptoms such as sleep-disturbance, anxiety, somatic complaints and disturbed interpersonal relationships. The patient is allowed to discuss any recent stressful situation that has occurred, although part of the time of the interview is spent in adjusting the medication.

BRIEF PSYCHOTHERAPY

In short-term psychotherapy, the attitude of the therapist is more authoritarian, the degree varying from directiveness to a more permissive attitude, according to the needs of the patient. However, in order that the patient may feel accepted as he is, it is most important for the therapist to be sympathetic, non-judgmental and non-condemning, while remaining firm. The different techniques in supportive psychotherapy include guidance, environmental manipulation, externalization of interests, reassurance, persuasion, emotional catharsis and re-education.

In giving guidance, the therapist is concerned with helping the patient develop better ways of adjusting to reality. Generally speaking, the physician helps the patient evaluate his life situation, recognizes what measures may correct his difficulties, and helps him take the active steps necessary to carry out the plan. The patient should be encouraged to make his own choices and decisions as much as possible, and his reservations about a suggestion offered by the physician should be respected. A certain amount of negativism or resistiveness should be anticipated from an anxious patient, along with occasional outbursts of hostility that may be directed toward the physician and others.

With environmental manipulation, one aims at altering disturbing environmental circumstances. Although a seemingly superficial measure, it may be necessary as a means of returning the patient to a state of equilibrium. It is often effective in dealing with certain family problems where continuously disturbed family interaction produces serious conflict for a member of the family. Some of the conditions which may need changing include work, neighborhood and community relations, family relations, other interpersonal relations, daily habits and activities, recreation and health. Hobbies, occupational therapy and recreational activities may be explored and recommended as a means of turning the patient's interest away from himself. Such externalization of interest may provide ways in which the patient can concentrate on his abilities rather than on his inadequacies, can express his aggressive impulses in an acceptable manner, and can associate with groups, rather than withdraw from social contacts. One aims at giving the patient a sense of accomplishment and satisfaction along with a need for approval through social interaction.

Reassurance should be employed with caution, and generally expressed by non-verbal behavior. That is to say, it should take the form of an accepting attitude, rather than of specific statements. Of course the patient who comes with a physical complaint needs to be reassured that he has no serious physical disease, and that anxiety in itself can cause somatic symptoms. It is difficult to handle life problems simply through reassurance. However some reassurance is very helpful in giving the patient the needed impetus to face a difficult situation. With the reassurance, he then may be able to master his problems and develop a sense of accomplishment.

With persuasion, one aims at convincing the patient that through self-control, knowledge and reason, along with the encouraging impetus given by the physician, he can master conflict. Persuasive techniques may consist of what seem to be rather superficial platitudes, such as convincing the patient that he can overcome despair, worry and physical disease by concentrating on constructive means of dealing with his problems. These techniques are quite helpful with certain types of patients, and can be utilized frequently.

The release of painful feelings and ideas characterizes emotional catharsis. If the patient can talk about and express his feelings without fear of condemnation, the way is open for dealing with his problems constructively. The energy he might otherwise use in trying to control his emotions can then be redirected and utilized. As he speaks about his problems he also becomes desensitized, in the sense that he learns that it is not dangerous for him to talk about the matter, and that the therapist will not retaliate but wants to help him find an effective way of solving the problem.

Finally, reeducative measures can be undertaken in which the primary purpose is to point out to the patient how his attitudes and behavior contribute to his problems of adjustment to other people. One can propose other ways of acting and reacting which will alleviate or correct his difficulties. Where the patient exhibits a lack of knowledge about an important aspect of human behavior, such as sex, education may be very helpful in alleviating certain types of problems. This can be valuable in dealing with the early marital difficulties that many couples experience.

THE USE OF MEDICATIONS

Many psychopharmacologic agents are effective in the treatment of anxiety. These medications facilitate psychotherapy by relieving overwhelming anxiety, helping to overcome resistance to treatment, fostering communication and reducing hostile feelings that interfere with the doctor-patient relationship. Relieving a patient's disabling anxiety symptoms can change many aspects of his outlook on life, and can make it much easier for him to deal with his emotional problems and to live with them, although the medication in itself does not solve those problems. For a patient who has been accustomed to deal with crises in an effective manner, a relief from his immediate symptoms of anxiety may be enough for him to solve his own problems. In other cases, where an immediate solution of problems is not available, a reduction of anxiety allows the patient to function more effectively and to tolerate some of the more difficult aspects of living.

The barbiturates were the only anti-anxiety drugs available prior to the development of the tranquilizers. In the usual dosage the barbiturates have greater sedative effect than most minor tranquilizers, are far more dangerous as suicidal agents, have greater addictive properties, are generally less effective clinically, and increase the underlying depressive elements in many anxiety states. During the past 10 years many anti-anxiety medications or minor tranquilizers have been introduced that are effective in giving relief from anxiety symptoms. These drugs, though very valuable, must be prescribed cautiously, and one must be aware of their side effects—especially those of dependency and withdrawal.

Over 50 medications currently being marketed are useful in the treatment of anxiety. Generally the physician, on the basis of his own experience, will confine himself to a few favorite drugs. Tranquilizer therapy of the anxious patient, in our experience, involves the use of such agents as amobarbitol sodium (Sodium Amytal), meprobamate (Miltown or Equanil), oxazepam (Serax), chlordiazepoxide (Librium), and diazepam (Valium). Amobarbitol sodium may be given in doses of 30 to 60 mg. from one to four times per day, and meprobamate in doses of 400 mg. from one to four times per day. Barbiturates may reduce the symptoms of anxiety, but cannot relieve the symptoms of depression in patients with low levels of drive. The other agents, in suppressing anxiety and tension, frequently relieve somatic and some of the depressive components related to anxiety.

In our experience, diazepam has been the drug of choice in treating patients with mild to moderate anxiety. The dosage of diazepam must be adjusted to each patient. If there is mild to moderate anxiety, we generally start with 5 mg. t.i.d., or t.i.d. and h.s. One aims at alleviating the patient's symptoms and producing only minimal side effects. Drowiness and ataxia may occur with overdosage. The

patient should be warned that he is expected to experience some side effects such as mild drowsiness and minor ataxia, and that a balance must be achieved between relief of symptoms and a minimal number of side effects. Often patients learn to regulate their medication with an awareness of their various levels of anxiety. One can explain to the patient that diazepam is a type of "emotional pain" pill, and when there is more pain of anxiety, then it is appropriate for him to take an extra dose of the medication. After the patient has been placed on tranquilizer medication, it is a good idea for him to phone the physician within three to five days to report how he feels. If there has been no reduction in his symptomatology, the dosage of diazepam may be increased to a maximum of 10 mg. q.i.d. for the very anxious patient. When insomnia persists despite a moderate dosage, it is helpful to give a larger dose in the evening—as much as 10 to 20 mg. Frequently this produces sleep more effectively than barbiturates, chloral hydrate and other hypnotic agents. In producing tranquilization and allowing sleep, diazepam has much less of a side reaction than many of the hypnotic drugs. When the patient is symptomatically improved, as indicated by a reduction in his anxiety, a mild mood elevation and improved overall functioning, the medication can gradually be reduced. The aim is to keep the patient on a proper balance of medication, so that his anxiety symptoms are minimal and so that he functions effectively without becoming excessively dependent on the drug.

When the patients feels better, one dose can be removed, and if his improvement continues, another dose can be discontinued within two to four weeks. The evening dose is always the one to be stopped last. Reducing medication in this fashion will tend to prevent drug dependence, although some patients will require long-term drug therapy. The technique of reducing or dropping a dose every four weeks is useful in arriving at the lowest dose at which the patient can experience relative freedom from symptoms.

It is well known that patients tend to forget or neglect to take their medication. This problem is reduced if one instructs the patient to take pills t.i.d., a.c. or p.c. That sort of direction allows him to set a pattern which is convenient for him. If a patient who initially responded well to medication should return with more severe symptoms, inquire whether he has been taking the medication as directed. A relapse may be due to the lack of proper administration and scheduling of the medication. Many patients resist the use of drugs, and it needs to be impressed upon them that the medication is part of their treatment—that you are prescribing an appropriate treatment course, just as you would for any other type of illness.

Tranquilizers alone do not remove the cause of anxiety, and if they are given for too long a time they may keep a patient from trying to solve his emotional conflicts. Admittedly, symptomatic relief is all that is possible in many cases, but with that relief the patient may be able to cope more effectively with his problems, have better family and social relationships, and improve his behavior pattern without any formal psychotherapy.

It should be kept in mind that when a severe side effect occurs, it may take several days for it to disappear, for excretion of the drug may take that long. Older people usually respond to smaller dosages of medication, and they develop side effects more rapidly. Generally, in treating an elderly patient, one should start with diazepam 2 mg. q.i.d., and adjust the dosage as necessary.

Certain precautions need to be taken in the use of tranquilizing agents. All of them tend to potentiate the depressant actions of barbiturates, antihistamines, narcotics and alcohol. Excessive dosage can lead to ataxia and drowsiness. Sensitivity reactions of all types may occur, but are infrequent. Patients may often use these agents in an attempt at suicide, and hence caution is necessary in prescribing them. Diazepam has proved to be a relatively safe agent with very few side reactions when given in the dosages listed here. Its degree of drug safety is great. Excessive use, however, may lead to drug dependency. It is not uncommon for a patient who has been on moderately high dosages of diazepam and other tranquilizers for several months to experience mild withdrawal symptoms such as tremulousness and general discomfort after suddenly discontinuing the medication. Withdrawal of high, prolonged overdoses of barbiturates, meprobamate, chlordiazepoxide or diazepam may in some instances lead to convulsions and delirious states.

When anxiety is a symptom associated with medical illnesses, the latter, of course, must receive primary treatment. A patient with a chronic brain syndrome and associated anxiety often responds well to diazepam, as far as his anxiety symptoms are concerned. Barbiturates tend to make these individuals more confused and less manageable. If the anxiety is part of a pre-psychotic picture such as schizophrenia, then a major tranquilizer such as chlorpromazine (Thorazine) may be necessary. Agitated depression should be treated with such medications as amitriptyline (Elavil), and retarded depression preferably with imipramine (Tofranil).

The acute anxiety attack can often be handled effectively through the use of parenteral medications. Amobarbitol sodium, chlordiazepoxide and diazepam may all be given intramuscularly, and reduction in symptomatology occurs immediately thereafter.

The physician must keep in mind that drug therapy is influenced by a number of highly important factors apart from the action of the drug itself. These include the patient's personality, attitudes and ego strength, his expectations and needs, his feelings toward his physician, his intelligence, education and social status, and the duration and the intensity of his illness. One must also be aware of the importance of the physician's personality and attitudes, his own expectations and orientation, and his mood and personal feelings toward the patient, both conscious and unconscious. These factors, in turn, may be influenced by others such as the amount of time the physician spends with the patient, his ability to explore for problems with the patient, the initial character of the physician-patient reltationship and the physician's attitude toward the use of drugs. Where the emphasis is primarily on the use of drugs without the possibility of exploring problems, some patients definitely will feel rejected and will believe that the physician is not adopting an effective approach. On the other hand, there are patients who look upon themselves as having a primarily physical illness, who desire drugs to relieve their symptoms, and who do not want to involve themselves in exploring their problems. Clinical experience in dealing with a large gamut of patients with anxiety symptoms is important to the physician in carrying out a clearly effective technique and individualizing it for each patient.

PSYCHIATRIC REFERRAL

When should the patient with anxiety symptoms be referred to a psychiatrist? There should be one or more of the following three indications. First, the problems appear too difficult to handle in the above-described manner. This may be especially true if the conflict has been prolonged and represents an internalized personal difficulty, rather than an immediate response to environmental stress. Second, the anxiety is unduly severe or may be a warning of an impending psychosis. Third, the above treatment has not produced satisfactory results within two to four weeks. The goal of referral is carefully to establish psychiatric diagnosis and a treatment program. With consultation, many cases can be returned to the referring physician, and he then can continue to use psychotherapy and drugs with some continuing consultations with the psychiatrist.

SUMMARY

From this review, the physician can see the importance of recognizing anxiety in those of his patients who suffer from combinations of emotional and physical illnesses. Psychotherapy and drugs can be administered by the physician to reduce many of the symptoms of anxiety. Drugs are not to be used as a means of rejecting the patient, or as a way to "handle" an annoying individual, but can be effective in a program of treatment aimed at reducing the anxiety symptoms. However tranquilizers, in themselves, will not solve the patient's problems. They can do no more than reduce his symptoms so that he can cope with his problems far more effectively.

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Short Course in Obstetrics and Gynecology

The annual postgraduate conference on obstetrics and gynecology sponsored by the Department of Obstetrics and Gynecology of the U. of I. College of Medicine, the Iowa Obstetrical and Gynecological Society, and the Division of Maternal and Child Health of the State Department of Health will be presented in the ballroom at the Memorial Union, in Iowa City, on Thursday and Friday, January 16 and 17, 1969. The program has been accredited for 12½ hours by the American Academy of General Practice.

There will be a $30 registration fee, and dinner tickets are $6 each. Registrants who stay overnight at the Iowa House, which adjoins the Conference Center, will get reserved parking spaces in the new parking ramp for no additional charge. Doctors who do not stay there will need to order parking-ramp permits, and to pay $1.50 per day for them when they send in their advance registration fees.

Thursday, January 16

9:15 a.m. SMALL GROUP DISCUSSION PERIOD
1. Marriage Counseling—Robert M. Kretzschmar, M.D.
2. Labor Complications—Clifford P. Goplerud, M.D.
3. A Guide to Amenorrhea—M. E. Yannone, M.D.
4. Genetic Counseling—Hans Zellweger, M.D.
5. Gynecologic Pathology—W. R. Anderson, M.D.
6. The Unwed Mother—Madelene M. Donnelly, M.D.

11:00 a.m. "Technique of Total Hysterectomy"—Howard Ulfelder, M.D., chief of gynecology, Massachusetts General Hospital, Boston

11:45 a.m. "The Management of Menstrual Dysfunction"—Charles E. Flowers, M.D., head of obstetrics and gynecology, Alabama University Medical School, Birmingham

1:30 p.m. SMALL GROUP DISCUSSION PERIOD
1. Techniques of Family Planning—H. L. Miller, M.D.
2. Female Sexual Problems—A. S. Norris, M.D.
3. Practical Endocrinology—J. T. Bradbury, M.D.
4. Female Infertility—W. C. Keettel, M.D.
5. Fetal Monitoring in Labor—C. A. White, M.D.
6. Infections in Obstetrics and Gynecology —Dr. Goplerud

3:00 p.m. "What's New in the Management of Gynecologic Malignancy?"—Felix Rutledge, M.D., chief of gynecology, M. D. Anderson Hospital and Tumor Institute, Houston

3:30 p.m. "Techniques of Determining Fetal Maturity"—R. M. Pitkin, M.D.

4:00 p.m. "Obstetrical Anesthesia and Analgesia"—Dr. Flowers

4:30 p.m. "Management of Enterocele"—Dr. Ulfelder

5:00 p.m. BUSINESS MEETING OF THE IOWA OBSTETRICAL AND GYNECOLOGICAL SOCIETY

6:00 p.m. SOCIAL HOUR AND DINNER, Highlander Supper Club

Friday, January 17

9:00 a.m. "Induction of Ovulation"—Dr. Flowers

9:45 a.m. PLASS MEMORIAL LECTURE: "Congenital Anomalies of the Female Genital Tract"—Dr. Ulfelder

11:00 a.m. "The Use and Abuse of Drugs in the Management of Hypertension in Pregnancy"—Dr. Flowers

11:45 a.m. "Ovarian Carcinoma"—Dr. Rutledge

1:30 p.m. "Unusual Problems in Gynecologic Malignancy"—Dr. Rutledge

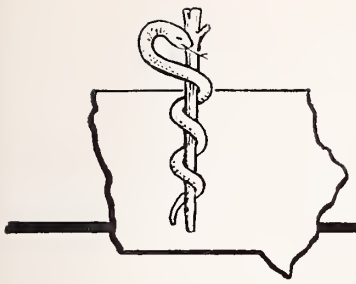
2:00 p.m. "Myomectomy"—Dr. Ulfelder

2:45 p.m. "Superficial Lesions of the Vulva"—Dr. Rutledge

3:15 p.m. "Mechanism of Action of the Oral Contraceptive"—Drs. Bradbury and Yannone

3:45 p.m. "The Value of Prenatal Classes"—H. L. Miller, M.D., Dorothy Ryan, M.D., and Anna Overland, R.N.

5:00 p.m. ADJOURNMENT



Editorials

OF YOUTH AND AGE

Age is a quality of mind.
If you have left your dreams behind,
If hope is cold,
If you no longer look ahead,
And if ambition's fires are dead,
Then you are old.

But if from life you seek the best,
And if in life you keep the zest,
If love you hold,
No matter how the years go by,
No matter how the birthdays fly,
You are not old.

BY THE COMMUNITY AND FOR THE COMMUNITY

A recent diabetes education program conducted by the Municipal Hospital in Worthington, Minnesota, a city of just over 9,000 population, is commendable. Hospitals in other like-sized towns might well emulate it. The first set in a series of meetings took place on five successive evenings in September, lasting three to four hours each night. The objective was to help the diabetic patient and his or her spouse or parents learn more about diabetes and how it may be controlled. The program was conducted by an internist, a pediatrician, an ophthalmologist, a dietitian and a nurse. The fee for the course was a modest $10 per family. Each participant was required to have the approval of his physician, and the doctor's signature had to appear on the application form.

Each session was attended by 20 to 25 persons, some coming from communities at distances of 40 to 60 miles. On every occasion two informal talks were given on subjects of practical importance to an understanding of diabetic management: "What Is Diabetes?" "Insulin and Its Use and the Effect of Exercise," "Oral Hypoglycemic Agents and Their Use," "Acute Complications—Insulin Reactions and Diabetic Acidosis," "Long-Term Complications," "Diet Planning," "Personal Hygiene," etc. A pertinent film strip concluded each session. Time was allowed for individual conferences with physician, nurse or dietitian.

Some friends of ours and their teen-age daughter who recently developed diabetes attended the course, and they were impressed by its excellence and merit. They face the future with increased confidence in their ability to cope intelligently with the problem of diabetic management. The diabetic youngster's mother found the dietary suggestions particularly helpful. Tests given at the start and again at the conclusion of the course confirmed the benefits that the enrollees derived.

This program appears to be an example of regional medicine at its best, without federal fanfare or federal funds—one which the heart, cancer and stroke program might copy with great benefit to all concerned. The knowledge gained in the diabetic program is carried back to the neighborhoods of the participants, and the other diabetics in each of those places will benefit.

REQUEST FOR MANUSCRIPTS

The editors of the JOURNAL appeal to the physicians of the state for original manuscripts reporting series of cases or individual cases which have been challenging or interesting diagnostic or therapeutic problems. Reviews of clinical conditions which would be helpful to colleagues are always well received.

The supply of manuscripts submitted for publication has become disappointingly low. Syndicated material is available, but is a poor substitute for original articles by physicians who are members of the State Society.

The situation in Iowa is not unique. Many other state journals are confronted with the same problem. The paucity of materials available for publication is ascribed to the fact that physicians are so busy that they have insufficient time to prepare original papers.

It is the conviction of the editors that the JOURNAL serves the Society as a cohesive force which is necessary if organized medicine is to be effective in the future. They also feel that a state journal provides an outlet for scientific expression and a source of scientific information that is helpful to the practitioner.

The JOURNAL is *your* publication! You are urged to do your part in keeping it a magazine of which everyone can be proud.

Those of you who are officers or program chairmen of county medical societies, or of specialty groups at the state level, can help to familiarize all of the physicians in Iowa with the high quality of your scientific programs by providing manuscripts or tape recordings of the presentations made by member doctors, and by guest speakers, for publication in the JOURNAL. Moreover, despite the proliferation of scientific meetings, closed-circuit television programs, medical movies, etc., the printed word remains the reference on which the clinician must rely whenever he has occasion to make use of new technics and new medications. Thus, no matter how splendid your programs may have been, they can be maximally beneficial even to the physicians who were there to hear them, only if they subsequently are made available in printed form.

THE LA LECHE LEAGUE

A lay organization that deserves the support of physicians everywhere is the La Leche (pronounced *lah lay chay*) League International. It is composed of women experienced in the technique of breast feeding, who are interested in encouraging other mothers to nurse their babies, and in advising and instructing them in the proper techniques for successful nursing.

The impetus which prompted the formation of this unusual organization occurred at a picnic in Franklin Park, Illinois, in 1956. Two young mothers had brought their babies with them, and while conversing with other women, some of whom were young brides and others were mothers who had been unsuccessful in nursing, they happily nursed their infants without concern or embarrassment. Their doing so naturally led to many inquiries and many explanations, and thus the idea dawned that perhaps the mother-to-mother and mother-to-prospective-mother exchange could be developed into an effective and worthwhile program. In consequence the first local La Leche group was formed, and the idea spread rapidly until today La Leche is an international organization with units in most of the American states and in six foreign countries.

The basic purpose of the League is to provide information and personal instruction to any mother or prospective mother, and to further support breast feeding. This is accom-

plished by meetings where mothers interested in breast feeding can benefit from the experience of women who successfully nursed their babies. The organization has published an illustrated book entitled THE WOMANLY ART OF BREAST FEEDING, and it provides members with a bimonthly newsletter.

The League has a medical advisory board that passes upon the statements that are to go into its literature, provides information regarding research in breast-feeding and gives advice concerning medical problems. Thus the information provided represents current scientific thought on the subject, and is not predicated merely upon an emotional appeal.

It is estimated that the incidence of breast feeding in this country has reached a low of 25 per cent. Though the low incidence may be ascribed to the safety and success of artificial feeding as it is carried out today, certainly the indifference of physicians and nurses is a large factor in the reduction in the number of mothers who successfully nurse their infants.

The physiologic and psychological advantages of breast feeding to both mother and infant are well recognized. Although bottle feeding does not preclude a well nourished and a happy, well-adjusted baby, it does not provide the intimacy and the emotional satisfactions that nursing gives both to the mother and to the infant.

Physicians and nurses in obstetrical departments and in medical offices should urge prospective mothers to become members of the La Leche League, and to make a greater effort in support of breast feeding. Information concerning the La Leche League International can be obtained from its central office, 9616 Minneapolis Avenue, Franklin Park, Illinois 60131.

AVOCATIONS AS ANALGESICS

In a recent paper on the subject of "Control of Pain in the Rheumatic Disorders," F. Dudley Hart, a British physician, says that after over 20 years of working with patients suffering from rheumatic disorders, he continues to be amazed and humbled by the fortitude with which they endure their daily unpleasant ration of pain.*

He points out that pain in the rheumatic diseases is a mixture of worry about the future, annoyance over an inability to lead a normal life, gastric disturbances from the numerous medications injested, irritation from the confusing advice of well-meaning friends as to what to do, the weakness, the stiffness, and the local and general pain. In addition to the crippling and the pain, mental depression may dominate the picture, and it may be severe.

In a summation of approaches to the relief of pain in rheumatic disorders, Hart states that it may be attacked (1) centrally, with drugs that vary from simple analgesics to those which are more potent and potentially addictive; (2) peripherally, by local action of heat or cold, by local anesthetics or the injection of anti-inflammatory agents, or by surgery; (3) a peripheral approach using anti-inflammatory non-analgesic agents such as corticosteroids taken systemically; and (4) peripherally by a drug such as aspirin, which is anti-inflammatory, analgesic and antipyretic, and is taken systemically.

The unusual aspect of Hart's article is that he goes beyond a consideration of the usual measures which are employed to alleviate pain in the patient with a rheumatic disorder. He gives emphasis to the great need for helping the distressed mind behind the painful joints—an aspect of every chronic disease, and one that is frequently neglected. "Faith in the future, cheerfulness, freedom from depression, and the development of a philosophy to deal with the uncertainties of the disease are essential," he declares. "It is the incurable diseases that are really worth treating, and that make demands upon the physician."

The author quotes from a personal communication from Sir Francis Tuker, who was afflicted with rheumatoid arthritis. It emphasizes

* Hart, F. D.: Control of pain in rheumatic disorders. BRITISH M. J., 3:635-640, Sept. 14, 1968.

a phase of patient management that perhaps is the "best analgesic of all": "My last word is this. Whoever has the care of a sorely stricken arthritic must encourage him to fulfill himself intellectually and spiritually, and to achieve —no matter what—but to achieve so that he may nightly lay himself down on his bed of pain looking forward happily to the morrow's task, mind centered upon it, no matter what it is—sticking in stamps, research into anything you like, dabbling with pastel or water colours, writing chatty letters to friends—anything at all. But let it be for him the most pressing thing of the day, and let him believe that *you* think it is. Help him, and let him live—live fully."

Surely the "analgesic" prescribed by Sir Francis and emphasized by Hart has a place in the management of chronic illness of every character. It is a type of therapy which requires just a little extra effort on the part of the physician, but is perhaps the most rewarding in his busy, busy day.

PSYCHOTHERAPY IN THE TREATMENT OF OBESITY

It is estimated that there are over 20 million people in this country who have an obesity problem, and some authorities place the figure as high as 40 million. Thus obesity is a common problem for the practicing physician. However, in his efforts to help such patients, he probably finds it one of the most frustrating and disappointing of difficulties. In many years of pediatric practice, the writer found the response of the typical overweight adolescent to his attempts to get him to shed excess avoirdupois extremely discouraging. Not until some significant motivation entered the picture was any success achieved.

A recent article by two Chicago physicians, Bigsby and Muniz, who have an interest in the obesity problem and the ethical approach to its successful treatment, urges that the past tendency to treat *weight* rather than *people* should be reversed.* The authors insist, however, that physicians working in this field must have a thorough knowledge of physiology and metabolism, and that the treatment of obesity cannot be isolated from coexisting conditions such as diabetes and heart disease.

They emphasize that the common practice of admonishing the patient, pointing out the hazards of excess weight, providing a diet list and urging increased expenditures of energy meets with little success. The brief pep talk, the calorie chart and a prescription for an anorexiant or a diuretic just do not motivate the patient to sustain the mood and to continue the reducing diet indefinitely. It is a common experience to have the patient abandon such a program after a month or six weeks, and promptly regain or even exceed his previous weight.

The Chicago physicians state that the only intelligent way to treat an overweight patient is to treat the person and not the obesity. The physician must make an effort to know and to understand the patient, and to develop an insight into the nature of the patient's problem. This can be accomplished only by an excellent patient-doctor relationship.

According to Bigsby and Muniz, rapport, insight and motivation can be improved by superficial psychotherapy. They assert that this consists of four elements:

1. *Aeration and ventilation*—encouraging the patient to talk freely about his overweight and the problems related to it.

2. *Explanatory therapy*—giving a judicious explanation of the causes of overeating, and refuting the many mistaken ideas about obesity.

3. *Manipulative therapy*—prescribing a long-term, prudent diet which will result in a gradual weight loss. It must be a diet that can be carried out over a long period, so that restraint in eating becomes natural and is no sacrifice.

4. *Supportive therapy*—the least important of them all, consisting of the intelligent and controlled use of medication.

The authors conclude with the statement

* Bigsby, F. L., and Muniz, C.: Medical management of obese people: timely observations. ILLINOIS M. J., **134**:180-181, Aug., 1968.

that the success of the program requires some special knowledge, time, interest and qualified personnel.

It appears that physicians do need a new approach to the management of the obese patient, and if any degree of success is to be achieved, more time and greater effort must be given to the task. The suggestion that one should treat the person rather than the obesity is an approach which deserves doctors' consideration. Perhaps the effort will meet with a greater measure of success.

CARCINOMA OF THE PANCREAS

A review of diagnostic studies of 100 consecutive patients with proved carcinoma of the pancreas by a group of physicians from the Cleveland Clinic is a disturbing one.* Whereas there has been an unexplained reduction in the incidence of carcinoma of the stomach at the Clinic in the last 20 years, the incidence of carcinoma of the pancreas has doubled during the same period, and the reason is no less hard to find.

The Cleveland physicians emphasize that the diagnosis of carcinoma of the pancreas is difficult, and that the symptoms resemble those of almost any other gastrointestinal disease, an orthopedic problem, a neurologic condition or even a psychiatric problem. The available laboratory and roentgenologic diagnostic studies are helpful only in the late stages of the disease, and even at laparotomy the findings can be misleading and may not be diagnostic. The five-year cure rate is unfortunately so low that delay in operative treatment does not appear to alter the outcome adversely.

Three new diagnostic aids are described, but it is pointed out that they are not screening tests and that despite their use there has been no appreciable improvement in the "cure" rate. These new and sophisticated diagnostic studies are (1) duodenal drainage after stimulation of the pancreas by secretin, (2) celiac and superior mesenteric angiography, and (3) pancreatic scanning. The latter two have been found helpful in difficult diagnostic problems, but none of the three is useful as a screening test.

In the group of 100 patients the diagnosis of histologically proved carcinoma of the pancreas by biopsy was made at operation in 88, and at necropsy in 12 patients. There were 69 males and 39 females. Eighty-three of the patients were 50 or more years of age. The youngest was 16 years old, and the oldest was 86.

A correct preoperative diagnosis was made in 88 patients. At the time of biopsy, during laparotomy, 83 had identifiable metastases. Hepatic metastases were present in 53; mesenteric involvement was found in 26; and in 24 metastases to the regional nodes were observed. Abdominal carcinomatoses were present in 13 of the group, and distant metastases had occurred in 5 patients.

The surgical procedures carried out consisted of total pancreatectomy in 3; partial pancreatectomy in 1; cholecystojejunostomy as a bypass procedure in 17; and exploration and biopsy in 67 patients.

Eighty-two of the 100 patients have died, their periods of survival varying from two to 36 months and averaging 12.8 months. Eighteen patients are still living, or were still alive in March, 1968.

As a result of the careful study of this group of patients, the authors emphasize that the onset and progression of any of the following in a patient who has previously been well should arouse a suspicion of carcinoma of the pancreas:

1. Unexplained upper-abdominal pain or unexplained back pain.
2. Diabetes, long-standing or of recent onset, as indicated by an abnormal glucose-tolerance test. This is a finding in 50 per cent of the patients.
3. Weight loss.

* Brown, C. H., Rastogi, H., Alfidi, R., and Rodriguez-Antunez, A.: Diagnostic studies in carcinoma of pancreas; review of 100 patients. J. LOUISIANA M. SOC., **120**:375-385, (Sept.) 1968.

4. Unremitting, complete obstructive jaundice.

5. Recent history of agitated depression, conversion neurosis or anxiety tension state, with no obvious explanation.

6. Multiple peripheral phlebothrombosis or thrombophlebitis.

7. Unexplained "weakness and tiredness."

It is pointed out that routine roentgenographic studies are rarely of diagnostic value until late in the course of the disease.

The authors conclude by stating that there is a need for a simple, reliable screening test for carcinoma of the pancreas. The results of surgical treatment are dismal, and a new treatment such as an effective chemotherapy is sorely needed. The answer to the problem is not earlier diagnosis and earlier surgery, but is earlier diagnosis and a new and more effective method of treatment.

Surely, ingenious modern scientific medicine will seek and find a new and more effective treatment, and clinicians will then make a greater effort to recognize carcinoma of the pancreas in a stage when it can be cured.

Prevention and Management of Sports Injuries

The Fourth Annual Spring Conference on the Prevention and Management of Sports Injuries in Madison, Wisconsin, will present an all-star cast from all over the United States when it convenes at the Wisconsin Center, March 26 and 27, 1969. The always popular session on taping and bandaging will occupy the entire first morning of the conference. Four head trainers from leading midwestern Universities will demonstrate their techniques, and will assist all who wish to try them out. Mr. William L. Newell, of Purdue, Mr. Gayle B. Robinson, of Michigan State, Mr. Richard Hoover, of Northwestern, and Mr. Robert Weingart, of Marquette, will be the demonstrators.

Robert F. Dickey, M.D., an authority on the skin problems of athletes, will give illustrated lectures at two sessions on the second day of the meeting. Thomas B. Quigley, M.D., physician to the Harvard University football team, and Owen B. Murphy, M.D., orthopedic consultant to the University of Kentucky Athletic Department, will give talks and also participate in panel discussions on "Conditioning Athletes," "Ankle Injuries," and on "The Field Diagnosis of Injuries and the Rehabilitation of Sports Injuries." In the panel discussions they will be joined by members of the University of Wisconsin staff and some of the visiting trainers.

For further information, address Thomas C. Meyer, M.D., chairman, Postgraduate Medicine, 307 N. Charter Street, Madison, Wisconsin 53706.

Postgraduate Courses at Omaha

The University of Nebraska College of Medicine will present three postgraduate short courses during February. "Care of the Risk Newborn" is the subject of the course that will be given on Monday and Tuesday, February 10 and 11. The guest faculty will include Dr. Stanley Graven, an assistant professor of pediatrics at the University of Wisconsin; Dr. Richard Guthrie, an assistant professor of pediatrics at the University of Missouri; and Dr. James Sutherland, a professor of pediatrics at the University of Cincinnati. The registration fee of $40 includes two luncheons, and the course carries 12 hours of AAGP credit.

The fifth annual conference on closed-chest cardiac resuscitation will be offered once for physicians and dentists, on Monday February 17, and twice for nurses, on Tuesday and Wednesday, February 18 and 19. The registration fees—$20 for physicians and dentists, and $10 for nurses—includes one luncheon. The course carries six hours of AAGP credit.

"Aging and Arteriosclerosis" is the topic of the course that will be offered on Monday and Tuesday, February 24 and 25. The guest faculty will include Dr. Charles Barrows, Jr., chief of the biochemistry section, Gerontological Research Division, National Institute of Child Health and Human Development, Baltimore; and Dr. William Castelli, who is associated with the USPHS epidemiologic study of coronary disease at Framingham, Massachusetts. The $40 registration fee includes two luncheons, and the course carries 12 hours of AAGP credit.

The course in closed-chest cardiac resuscitation will be given at the University of Nebraska School of Nursing, and the other two courses will be presented at the Nebraska Psychiatric Institute.

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JOURNAL

Advertising FREE to members and wives of deceased members

President's Page



At a recent conference on continuing medical education sponsored by the American Medical Association, I gained some very definite impressions.

First, I am certain there will be persistent emphasis upon continuing medical education. As the federal government pays for more and more health care, there will be increased "auditing" and surveillance of the quality of care given. This, within limits, can be good but must never become harassment, and let us remember that the practice of medicine is not an exact science and has many intangibles. Within reasonable limits of acceptable practice, there is no right or wrong way.

I was also impressed by the fact that the programs of continuing medical education in Iowa seem to compare more than favorably with other states. There is also fine cooperation between our College of Medicine and the practicing physicians in the state. This, I discovered, is not universally the case. Much credit for this goes to Dean Robert C. Hardin and the cooperative attitude he has fostered throughout his entire faculty.

Let us all remember that a physician should never stop learning and all of us must strive to keep abreast of medical knowledge.

C. W. Lambert, M.D.

President

Cancer Society Honors Two of Its Physician Leaders

Richard A. Hastings, M.D., Ottumwa radiologist, received the American Cancer Society's "Bronze Medallion and Citation" on November 2, 1968, in recognition of his outstanding volunteer work with that Society. The presentation was made at a surprise ceremony in conjunction with the Cancer Society's Iowa Division Annual Meeting at the Hotel Savery in Des Moines. In attendance to witness the presentation were Mrs. Hastings and their children.

The coveted award is presented each year to an outstanding Iowa volunteer by the Society's national board of directors. Dr. Hastings is the second Ottumwa resident to receive this award. S. F. Singer, M.D., received the honor in 1956. The presentation was made by Harold W. Morgan, M.D., Iowa Division treasurer. Dr. Morgan was the first Iowan to receive the award at the state meeting in 1949.

Dr. Hastings is currently chairman of the board of the Society's Iowa Division. He served as president of the Division during the 1965-66 year. In addition, he serves as a member of the Executive Committee and the Professional Information Committee. He became a board of directors member in 1959. As a member of the Division's speaker bureau, he has addressed many cancer control groups throughout Iowa.

His professional memberships include the American College of Radiology, Radiological Society of North America, the American Medical Association, the Iowa Medical Society and the Wapello County Medical Society. Dr. Hastings has served as president of the Wapello County Medical Society, has been its secretary-treasurer for a ten-year period, and has served two years as president of the staff of the Ottumwa Hospital.

Currently, he is serving as the American Cancer Society's Division representative on the Iowa Regional Medical Program Advisory Committee, which has responsibility for administration of the federal government's Cancer, Stroke and Heart Disease projects in Iowa. His length of service as a cancer control volunteer has been recognized

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Harold W. Morgan, M.D. (left), retiring treasurer of the American Cancer Society, Iowa Division, Inc., presented the national Cancer Society's Bronze Medal and Citation to Division Board Chairman Richard A. Hastings, M.D., of Ottumwa, at the Division's Annual Meeting held in Des Moines, Saturday, November 2, 1968.

INFORMATION FROM THE
IOWA HEART ASSOCIATION

Clinical Applications for the Inhibition of Beta-Adrenergic Receptors With Propranolol

MORRIS STAMPFER, M.D. and
STEPHEN E. EPSTEIN, M.D.

Propranolol, the first clinically useful beta-adrenergic blocking drug, was recently placed on the market after several years of exhaustive clinical trials. On the basis of many investigations, it appears that blockade of the beta-adrenergic receptors may be useful in the treatment of several types of cardiac problems. However, as with any potent drug, the physician must possess full knowledge of its mechanism of action and possible hazards before prescribing. This article is intended as a brief survey of the actions and uses of propranolol for the practicing physician.

PHARMACOLOGY

The work of Dale, Ahlquist and others has established the existence of different types of responses to adrenergic stimulation, dependent on the presence of either of two types of receptor sites in the tissues. For example, stimulation of alpha adrenergic receptors causes constriction of blood vessels, and stimulation of beta receptors causes vasodilation. Only beta receptors are located in the heart, and stimulation of these receptors results in an increase in the heart rate and the force of cardiac contraction. The endogenous catecholamines, epinephrine and norepinephrine, stimulate both alpha and beta receptors, and the catecholamine isoproterenol stimulates beta adrenergic receptor sites exclusively. Although alpha adrenergic blocking drugs have been known for many years, propranolol is the first generally available drug which antagonizes the action of catecholamines at the beta adrenergic receptor sites, thus causing a slowing of the heart rate and a decrease in the force of cardiac contraction.

Dr. Stampfer is an associate in medicine at the Albert Einstein College of Medicine, New York City, and Dr. Epstein is acting chief of the Cardiology Branch, and chief of the Section on Circulatory Physiology, Cardiology Branch, at the National Heart Institute, Bethesda, Maryland.

CLINICAL USES

1. *Angina Pectoris.* Angina pectoris is due to a disproportion between the O_2 requirements of the myocardium and the O_2 supply, so that the supply of oxygen is insufficient to meet myocardial metabolic demands. In theory, angina can be relieved either by increasing oxygen delivery or by decreasing metabolic requirements. Since both heart rate and the force of contraction are important in determining the amount of O_2 required by the heart, propranolol, by decreasing these parameters during exercise, is often successful in relieving angina that is refractory to the more commonly used drugs. The dose required is highly variable, and one can best ascertain it starting with a small dose such as 10 or 20 mg. by mouth four times daily, and increasing it gradually until attacks of angina are substantially less frequent. Daily doses of 400 mg. or more have occasionally been used, although the most commonly required dosage ranges from 120 to 240 mg. daily. Very close observation of the patient is necessary, since congestive failure may appear. Such symptoms can often be controlled with digitalis glycosides and diuretic agents. However, if these interventions do not succeed in controlling symptoms of failure, propranolol must be discontinued.

2. *Arrhythmias.* Propranolol can be used in the treatment of various cardiac arrhythmias; its beneficial effects are due not only to beta adrenergic blockade, but in certain arrhythmias to a quinidine-like action as well.

Propranolol may abolish arrhythmias caused by digitalis intoxication, including frequent premature ventricular contractions and ventricular tachycardia. It should be stressed, however, that there is no evidence that propranolol is superior to some of the other commonly used antiarrhythmic agents.

In arrhythmias not due to digitalis, such as atrial fibrillation or atrial flutter with rapid ventricular response, propranolol usually can be relied upon to slow the ventricular rate. The frequency of recurrent attacks of paroxysmal atrial tachycardia can occasionally be reduced or prevented by propranolol, although sufficient information to assess long-term results is not yet available.

When emergency treatment is required, propranolol should be given intravenously in doses of not more than 0.5 mg. every three to four minutes until the desired effect has been achieved or signs or symptoms of worsening cardiac decompensation are noted. The drug should not be

used in complete atrioventricular block with idioventricular rhythm (unless a cardiac pacemaker is in place), since electrical activity may be slowed further or arrested.

3. *Idiopathic Hypertrophic Subaortic Stenosis.* Propranolol has been beneficial in many patients with idiopathic hypertrophic subaortic strenosis (IHSS). The exercise tolerance of patients whose primary symptom is angina pectoris has been improved by propranolol, and the frequency of syncopal episodes and of arrhythmias can be reduced in other patients. The reason for this improvement probably is that obstruction to left ventricular outflow in IHSS is worsened by drugs or maneuvers such as isoproterenol or exercise that increase the contractile state of the heart. Propranolol, by decreasing sympathetic stimulation of the heart, decreases this obstruction. This change is less marked at rest, when there is normally little sympathetic stimulation present, but it becomes more significant during exercise.

It should be stressed that in patients with IHSS and congestive failure the drug may produce deleterious effects, just as in patients with other types of heart disease who have signs and symptoms of cardiac failure.

SIDE EFFECTS AND CONTRAINDICATIONS

By interfering with sympathetic stimulation to the heart, propranolol decreases the cardiac output response to exercise in normal subjects, and thereby impairs their capacity to perform intense exercise. This finding demonstrates the significant role of the sympathetic system in cardiac response to the stress of exercise. Propranolol also alters the diurnal pattern of sodium excretion in normal subjects and in patients with mildly impaired cardiac function. However in patients with severe cardiac decompensation, its administration may cause frank retention of sodium and fluid—changes which result in progressive edema accumulation and symptomatic deterioration. Thus in heart disease patients whose cardiac reserve is diminished and who depend upon sympathetic support to maintain compensation, inhibition of cardiac sympathetic stimulation may lead to severe and sometimes irreversible symptoms of cardiac failure.

The other major side effects that have been reported are severe hypoglycemic reactions occurring in patients taking insulin or oral hypoglycemic agents, and acute pulmonary insufficiency due to bronchospasm, a complication that may occur in patients with obstructive airway disease.

SUMMARY

Blockade of the beta-adrenergic receptors is of significant benefit in selected patients with various types of heart disease. Angina pectoris, digitalis-induced arrhythmias, atrial fibrillation and flutter, and idiopathic hypertrophic subaortic stenosis are conditions in which this drug may be useful. However caution and continued close observation of the patient are always necessary because removal of sympathetic support to the failing heart may result in severe cardiac decompensation. Propranolol and other beta-adrenergic blocking drugs should not be administered to patients with congestive heart failure that does not respond to digitalis glycosides and diuretics, and to patients with atrioventricular block, unless a cardiac pacemaker is in place. In addition, they should be given with extreme caution to patients with obstructive-airway disease, and to patients taking insulin or oral hypoglycemic agents.

Cancer Society Honors Two of Its Physician Leaders

(Continued from page 58)

on two previous occasions. He has received the Iowa Division's Five- and Ten-Year Volunteer Service Awards.

In addition to his professional activities, Dr. Hastings has served as an elder in the First Presbyterian Church of Ottumwa and as a past member of the Ottumwa Kiwanis Club, and has served the original board of Tenco Workshop.

At the same meeting Dr. Morgan, a Mason City radiologist, announced that he is retiring from all offices of the Iowa Division. Dr. Morgan was first appointed by the Iowa Medical Society to work with the forerunner group which eventually became the American Cancer Society's Iowa Division. It was in 1942 that he suggested establishment of a full-time office with a paid secretary, to direct volunteer activities in the state. In 1945, he attended a meeting in Chicago, of representatives from several states, and was so impressed that he returned to Iowa, urged the expansion of cancer control efforts which resulted in the incorporation of the Iowa Division in 1946. That year the Crusade total was $150,000. Dr. Morgan signed the first check, in the amount of $35,000, as the Iowa Division initial investment in the cancer research laboratories at the U. of I.

In 1949, the Society's national board of directors honored Dr. Morgan with presentation of the "Bronze Medallion and Citation" for his outstanding volunteer efforts. This is the highest honor which the Society bestows on a division volunteer. The following year, Dr. and Mrs. Morgan traveled to Paris, where he represented the Iowa Division at the International Cancer Conference.

From 1948 until 1960, he served as Chairman of the Board of Directors. He has served as a member of the Executive Committee, and as Treasurer of the Iowa Division, and has the distinction of being the Iowa Division volunteer with the longest record of continuous Board of Director service.

Throughout the years, Dr. Morgan's wife, Rachel, has put forth an unceasing and dedicated effort in various cancer control activities.

THE JOURNAL *Book Shelf*



BOOK REVIEWS

THE MENTALLY ABNORMAL OFFENDER. A CIBA FOUNDATION SYMPOSIUM, ed. by *A. V. S. de Reuck* and *Ruth Porter* (Boston, Little, Brown and Company, 1968. $10.00).

This volume, one in a series of symposia, is concerned with a rather highly specialized group of patients—those having clinically identifiable mental abnormalities who also, by virtue of their antisocial behavior, have come to the attention of law-enforcement authorities. This subject is not likely to be of interest to many physicians since it tends to concern itself with only the small number of people who commit crimes, rather than with the very broad question of criminal behavior as such. For the specialist, however, the volume contains a number of papers and discussions which are informative and provocative, and for those whose work may involve medico-legal psychiatric matters, it is an important contribution to the literature.—*Sidney L. Sands,* M.D.

COMPREHENSIVE REVIEW OF MEDICAL TECHNOLOGY, by *Francis E. Dolan,* Ph.D. (St. Louis, C. V. Mosby Company, 1968. $6.95).

This is a very useless book in a very expensive format. Essentially, it is a collection of review questions intended to prepare students for medical technology examinations.

It is discouraging to me to think that this much effort and expense have been expended in providing a small book of only 155 pages as a review syllabus.

As a reviewer, I condemn the principle of having such a book sold for $6.95.—*John W. Green, Jr.,* M.D.

HANDBOOK OF PEDIATRIC MEDICAL EMERGENCIES, 4TH EDITION, by *Charles Varga,* M.D. (St. Louis, C. V. Mosby Company, $19.75.)

In 1951 Dr. Varga and the late Dr. Adolph G. DeSancti presented their first edition of the HANDBOOK which now enters its fourth edition, increased in size, over the years, from 275 pages to 675 pages. The term "handbook" is no longer a very appropriate name for this volume, for it would be rather difficult for one to keep anywhere except on his desk or on a convenient bookshelf. It certainly is not to be carried about to the wards or to the emergency room. It is undoubtedly the consequence of such a thought that the size of the letters on the title page deemphasize the words "Handbook of."

Now to more important aspects of this excellent reference book. Several contributors have updated the principles of management of pediatric emergencies of all types from the newborn period on through such psychiatric "emergencies" as school phobia. Some of the topics may not be considered emergencies, and thus the book can perhaps be regarded as unnecessarily voluminous, but after all, the lay version and the professional version of "emergency" may be worlds apart.

The discussions for the most part are in outline form. It is relatively easy to find the material one wants, because the index is very complete. Inside the back cover is a "quickie" index to special emergencies such as cardiac arrest, shock and poisonings.

The reviewer recommends placing a copy of this book in every pediatric ward and emergency room where pediatric patients may enter. My copy *will not* lie forgotton on the bookshelf.—*M. E. Alberts,* M.D.

CYSTIC FIBROSIS (Ciba Foundation Study Group No. 32). ed. by *Ruth Porter and Maeve O'Connor.* (Boston, Little, Brown and Company, 1968. $3.95.)

The international participants of the study group on control mechanisms of cystic fibrosis met in November, 1967, to engage in the discussions reported in this small (145-page) publication. Eight papers dealing with various aspects of cystic fibrosis were presented, each followed by quite extensive discussion. The subjects include: pathogenesis of cystic fibrosis; physiological aspects of nervous control of salivary glands; pharmacological aspects of salivary-gland secretion; disturbance in the pattern of secretion of bronchial mucous glands; ionic secretion by epithelial membranes; renal aldosterone-binding proteins; functional implications of the cell surface; and the role of kinins in exocrine glands.

Most of the material is "ivory tower" in nature. Eventually perhaps one might glean a bit that would have practical application to clinical medicine, but this book is far more likely to interest the researcher than the practicing physician.—*M. E. Alberts,* M.D.

BOOKS RECEIVED

SURGICAL PATHOLOGY, FOURTH EDITION, by *Lauren V. Ackerman,* M.D., in collaboration with *Harvey R. Butcher, Jr.,* M.D. (St. Louis, C. V. Mosby Company, 1968, $27.50).

CANCER—A MANUAL FOR PRACTITIONERS, FOURTH EDITION, published by the Massachusetts Division of the American Cancer Society, Boston, 1968.

QUESTIONS AND ANSWERS ON CONTACT LENS PRACTICE, by *Jack Hartstein,* B.S. (Med.), O.D., M.D. (St. Louis, C. V. Mosby Company, 1968, $10.75).

PRACTICAL PSYCHIATRY FOR THE INTERNIST, by *Douglas Goldman,* M.D., and *George A. Ulett,* M.D., Ph.D. (St. Louis, C. V. Mosby Company, 1968, $9.85).

INSTRUCTIONS FOR PATIENTS, by *H. Winter Griffith,* M.D. (Philadelphia, W. B. Saunders Company, 1968, $25.00).

Iowa Association of Medical Assistants

The Art of Conversation

"Conversation is an art in which a man has all mankind for competitors."

—Ralph Waldo Emerson

In the medical office we medical assistants often find ourselves at loss for a topic on which to strike up a conversation with an ill-at-ease patient. And how quickly such a patient can recognize a stilted, indifferent or flippant attempt to put him at ease!

It was Benjamin Franklin who said: "Conversation warms the mind, enlivens the imagination, and is a continually starting fresh game that is immediately pursued and taken, which would never have occurred in the duller intercourse of epistolary correspondence."

How are we to find something to talk about with patients? First, we must remember that each person is very much an individual. He may be shy, in pain, frightened or agitated. In a brief second you must call upon your knowledge of topics that may interest him. Try to recall his history card. What did he say about his occupation or his place of employment?

Are you ready? Your memory of that card has told you that he is employed as an engineer by one of the larger manufacturers in your city. What do you know about that company? Can you ask a question about a product that is being made there? Is it being shipped to other countries, for example? Then the greatest part in this art of conversation comes into play: You must *listen!* Listening well is as powerful a means of influencing people as is talking well, and it is essential to all true conversation. Now, I know you will ask, "Who has time in today's tempo to fool with conversation?" It may take only a half minute—just while the oral thermometer is registering. That brief moment you share with the patient can impart to him a feeling that you care and that he belongs!

There is much that we can collect of information on the many fields of art and industry. Let's take art. Have you been to the art gallery lately? attended a symphony? seen a good play?

Take the art gallery for a start. Spend an afternoon viewing the paintings. Pick out one you really like, and then start doing a little research on the artist. It will be one of the most fascinating avocations you could adopt. Tuck this bit of information away in your mind. Who knows? The next patient you chat with may be a "budding artist."

Then there is the field of crafts. Do some weaving; go to the library and research the art of weaving. You really will be studying history, and thereafter the art will be more meaningful to you. Then when Mrs. Jones tells you about the rug she is making, you can ask a question which will please her, for she will feel that you are really interested in her.

The object of your converse with the patient is, in part, to lead him or her away from fear of the unknown and to create a more relaxed atmosphere for the patient's forthcoming consultation with the physician. Of course you must carry on the business of the office, but perhaps you can intersperse bits of kindly conversation in with the office routine. By doing so, you can give patients a good impression of your office, of yourself and of your employer. Remember that you have a great influence on the opinion that patients form of doctors and doctors' offices, generally.

As you gather bits of information for future use, you are improving yourself. Not only are you enhancing your professional attributes, but every bit you gain will be helpful to you in your personal life, giving more flavor to your daily fare. In doing so, you will be injecting a few raisins of conversation into the otherwise tasteless dough of existence.

Which personality do you want to portray—the indifferent soul, the silent one, the bored one, the flippant one or the kindly one? Of course you'll choose the last, and so do I.

For good or ill, your conversation is your advertisement. Every time you open your mouth, you let men look into your mind. Do they see it well clothed, neat, businesslike?

The art of engraving will be my choice for research; what will you select for study?

—Marian Little

A once-popular treatment for back pains was to have the seventh son of a seventh son stand or walk on the patient's back.





The pain of earache was allegedly relieved by holding a hot roasted onion to the ear.

For headache, a sovereign remedy was to wear a snakeskin round one's head.



A realistic approach to pain relief



'Empirin'®

Compound with Codeine Phosphate gr. 1/2 No. 3

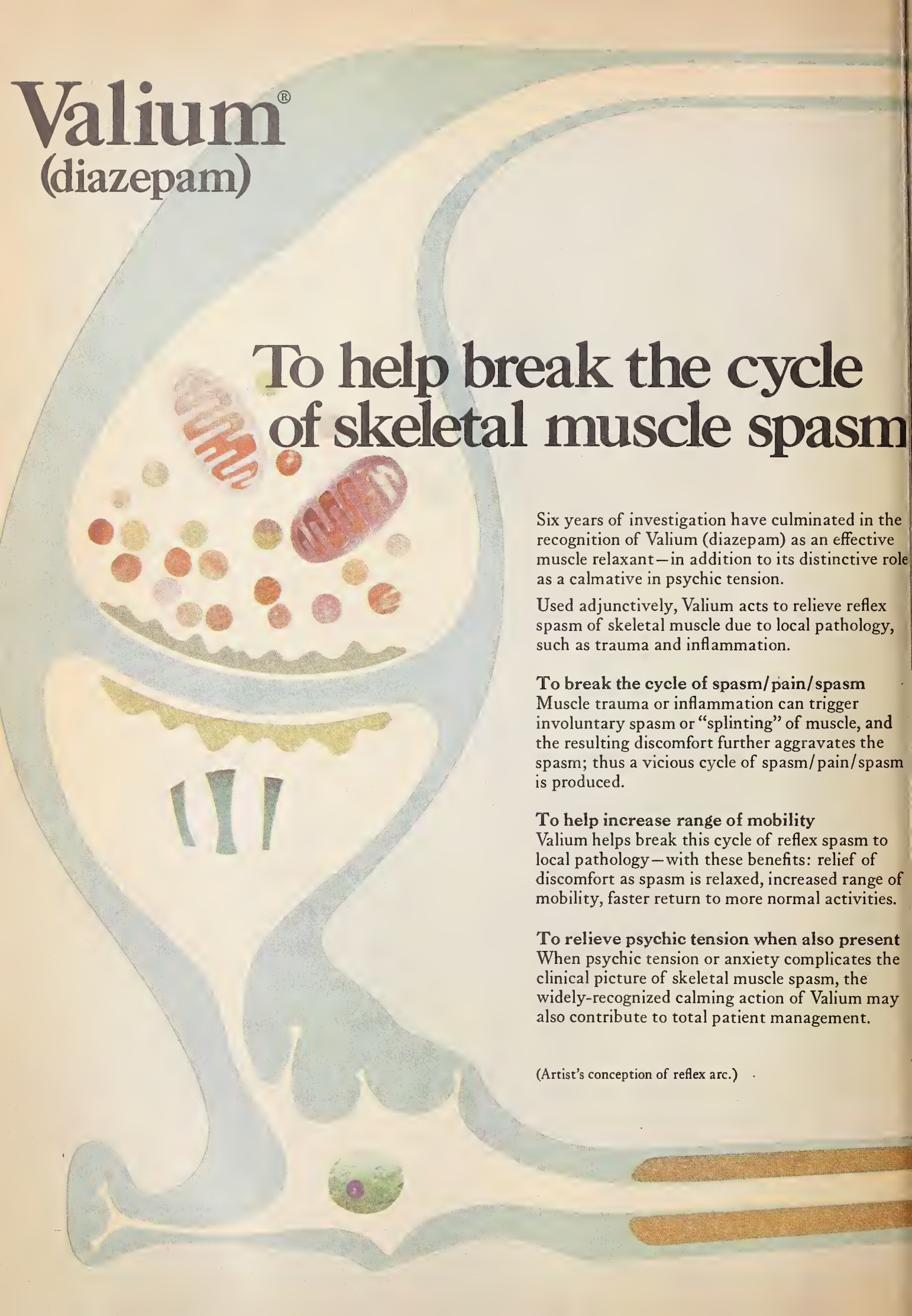
Each tablet contains:
Codeine Phosphate gr. 1/2 (Warning—May be habit forming), Phenacetin gr. 2 1/2, Aspirin gr. 3 1/2, Caffeine gr. 1/2.

keeps the promise of pain relief

'B.W. & Co.' narcotic products are Class "B", and as such are available on oral prescription, where State law permits.

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Tuckahoe, N.Y.

Valium®
(diazepam)



To help break the cycle of skeletal muscle spasm

Six years of investigation have culminated in the recognition of Valium (diazepam) as an effective muscle relaxant—in addition to its distinctive role as a calmative in psychic tension.

Used adjunctively, Valium acts to relieve reflex spasm of skeletal muscle due to local pathology, such as trauma and inflammation.

To break the cycle of spasm/pain/spasm
Muscle trauma or inflammation can trigger involuntary spasm or "splinting" of muscle, and the resulting discomfort further aggravates the spasm; thus a vicious cycle of spasm/pain/spasm is produced.

To help increase range of mobility
Valium helps break this cycle of reflex spasm to local pathology—with these benefits: relief of discomfort as spasm is relaxed, increased range of mobility, faster return to more normal activities.

To relieve psychic tension when also present
When psychic tension or anxiety complicates the clinical picture of skeletal muscle spasm, the widely-recognized calming action of Valium may also contribute to total patient management.

(Artist's conception of reflex arc.)



Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms have occurred following abrupt discontinuance. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation, have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

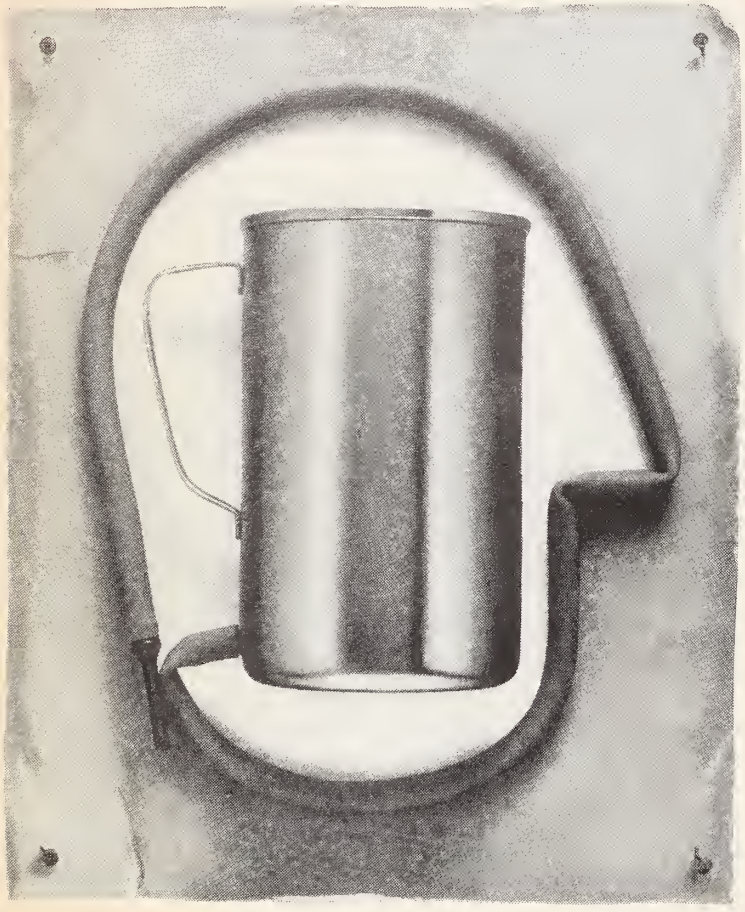
Valium® (diazepam)

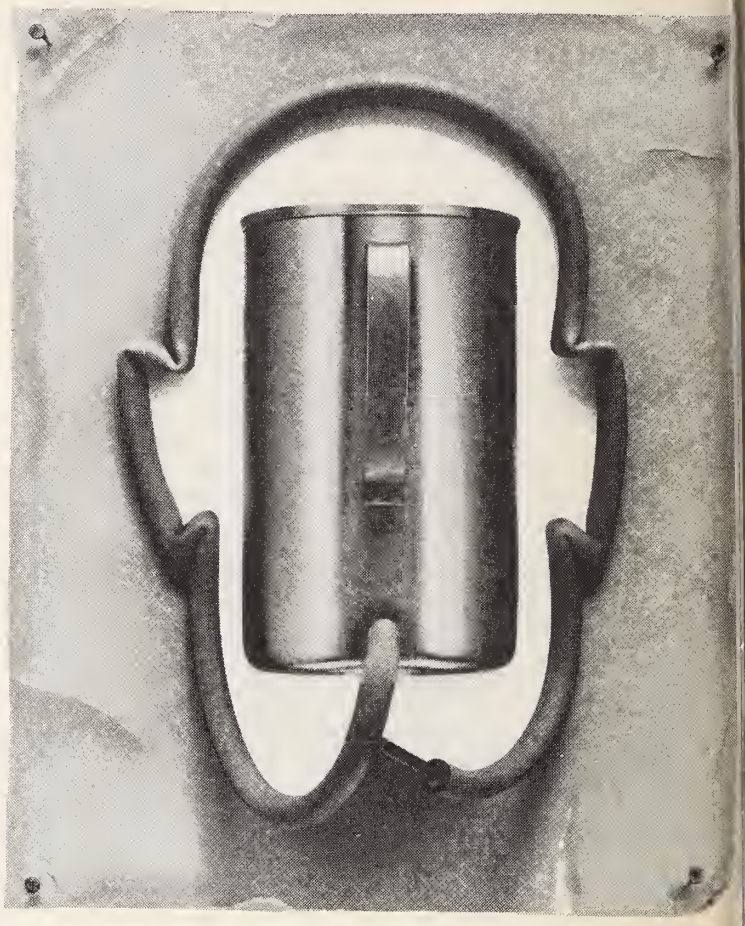
2-mg, 5-mg, or 10-mg tablets, t.i.d. or q.i.d. and when skeletal muscle spasm and psychic tension interfere with sleep: add 1 tablet, h.s., to t.i.d. dosage

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Public Enema No. 1





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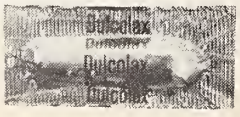
Compared to enemas, Dulcolax suppositories are a gentler and simpler way to empty the bowel. Gone are the tubing, the "accidents", and the bruised egos. Just one suppository, inserted against the bowel wall, usually brings about an evacuation within 15 minutes to an hour.

In the hospital, order Dulcolax for constipation or bowel cleansing. Your patients will often prefer it to embarrassing enemas. And you can be sure nurses will appreciate the saving in time and effort.

Dulcolax tablets taken at night usually result in a bowel movement the following morning. A combination of tablets at night and a suppository the next morning generally cleans the bowel thoroughly in preparation for surgery or special procedures. Keep in mind, however, that the drug is contraindicated in the acute surgical abdomen.

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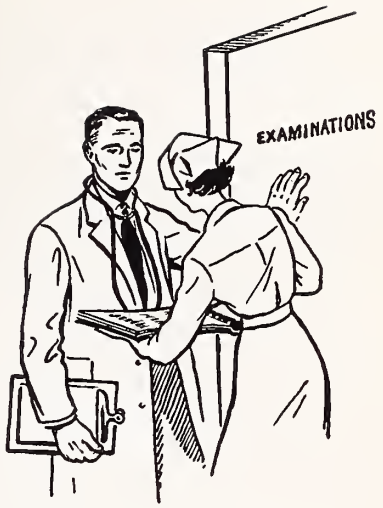
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DU-6118

THE DOCTOR'S BUSINESS

Listening—An Important Part of the Communications Problem

LARRY E. LEAVERTON



Nearly everyone has been exposed to *speech* instruction, has received training through Dale Carnegie courses or Toastmasters clubs, or has had just plain experience through organizations, meetings or discussion groups. It is strange, therefore, that few of us have ever taken a course, read a book or otherwise studied the subject of effective *listening*. Isn't it just as important as effective speaking? In verbal communication there should be both a speaker and a listener, but there is *much* material on speaking and very *little* on listening.

Does all of this apply to the business side of medical practice? Yes, very definitely! Communications are a vital part of your Public Relations. We see many problems of faulty communications in physicians' offices that are attributable to faulty listening:

A medical assistant says her physician employer never listens to her complaints or suggestions.

A member of a medical partnership in dissolution says, "I told my partners this would happen, but they wouldn't listen."

A patient says, "Doctor X never seems to be listening when I describe my symptoms. He is constantly interrupted and does not give me his undivided attention."

Dr. Y complains about the numerous medical meetings he attends, saying he has trouble concentrating upon and absorbing the papers and reports given.

Doctor Z says, "I've explained a dozen times to my medical assistant how I want my phone calls handled. She doesn't pay attention."

Your patients are frequently poor listeners. After giving instructions it is necessary for you to ask them to repeat what you have said, or confirm the instructions in writing.

Aside from your medical practice, has your wife ever said, "You never listen to anything I say."

A study of how business executives and professional men spend their time has disclosed that we devote seven out of 10 of our working hours to giving or getting information. Of that time, writing takes up 11 per cent; reading takes up 15 per cent; talking takes up 31 per cent and listening takes up 43 per cent.

Effective listening is a skill that can be developed. It is an acquired art. We must train ourselves to be better listeners.

In listening to others:

Look at the other person, and concentrate on what he is saying.

Think about what you hear.

Listen primarily for ideas.

Blank out personal problems or distractions.

Draw inferences from what is said and how it is phrased.

Avoid jumping to conclusions too rapidly.

Avoid being influenced by emotional words.

"Tune out" distracting noises and happenings.

Distinguish between the relevant and irrelevant.

Ask questions that show understanding.

Ask questions when you don't understand.

Ask for clarification.

Empathize with the other person.

Be sure you understand.

Be sure you do not misunderstand.

Whether you are listening to common complaints voiced by a patient, to a problem presented by one of your office staff, or to a speaker at your next medical short course or civic organization meeting, more effective listening can eliminate many of your communication problems.

Mr. Leaverton has been associated with Professional Management Midwest since 1949. He is a partner in the firm, and is director of its Research and Development Department.

So he'll breathe easier:

relieve anxiety while you relieve pain.

Relief of pain is usually a major goal in traumatic conditions. But often of importance, too, is alleviation of anxiety and tension that may heighten patient discomfort.

Single-prescription, non-narcotic Equagesic may effectively relieve pain. *And* ease anxiety and tension.

TABLETS

Equagesic®

(meprobamate and ethoheptazine citrate with aspirin)

Wyeth®

IN BRIEF.

Contraindications: History of sensitivity or severe intolerance to aspirin, meprobamate or ethoheptazine citrate.

Warnings: USE IN PREGNANCY: Safety for use during pregnancy or lactation has not been established; therefore, it should be used in pregnant patients or women of child-bearing age only when the physician judges its use essential to the patient's welfare.

Precautions: Keep out of reach of children. Not recommended for patients 12 years old or less. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use of meprobamate in susceptible persons—as alcoholics, ex-addicts, severe psychoneurotics—has resulted in dependence or habituation. Withdraw gradually after prolonged excessive dosage to avoid possibly severe withdrawal reactions including epileptiform seizures. Warn patients of possible reduced alcohol tolerance, with resultant slowed reactions and impaired judgment and coordination. If drowsiness, ataxia or visual disturbances (impairment of accommodation and visual acuity) occur, reduce dose. If symptoms persist, patients should not operate machinery or drive. After meprobamate overdose, prompt sleep, reduction of blood pressure, pulse and respiratory rates to basal levels, and hyperventilation are reported. Give cautiously and in small amounts to patients with suicidal tendencies. Treat attempted suicide (has resulted in coma, shock, vasomotor and respiratory collapse and anuria) with gastric lavage and appropriate symptomatic therapy (CNS stimulants and pressor amines as indicated). Two instances of accidental or intentional significant overdosage with ethoheptazine and aspirin have been reported. These were accompanied by CNS depression (drowsiness and lightheadedness) but resulted in uneventful recovery. On basis of pharmacologic data, CNS stimulation could be anticipated, with nausea, vomiting and salicylate intoxication (requires induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, and observation for hypoprothrombinemic hemorrhage [usually requires whole blood transfusions]).

Adverse Reactions: Ethoheptazine and aspirin may cause nausea with or without vomiting and epigastric distress, in a small percentage of patients. Dizziness is rare at recommended dosage. Meprobamate may cause drowsiness, ataxia and rarely allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses. Such patients may have had no previous contact with meprobamate and may or may not have an allergic history. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have been reported. If allergic reaction occurs, discontinue meprobamate; do not reinstitute. Severe reactions, observed very rarely, include fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. These cases should be treated symptomatically including, when indicated, such medication as epinephrine, antihistamine and possibly hydrocortisone. A few cases of leukopenia, usually transient, have been reported on continuous use. Rarely, aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia have been reported, almost always in presence of known toxic agents.

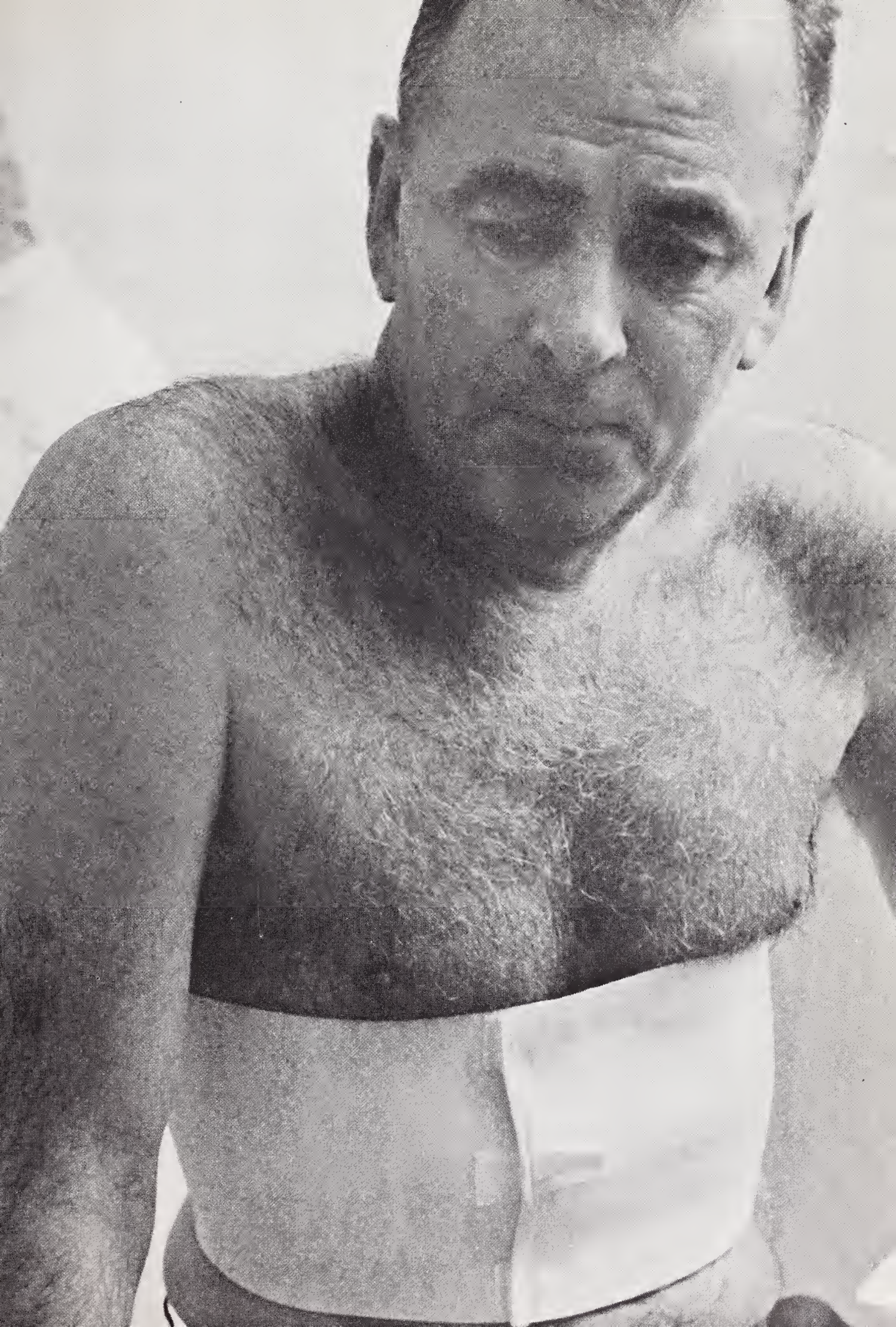
Overdosage: See precautions section for management of overdosage.

Composition: 150 mg. meprobamate, 75 mg. ethoheptazine citrate and 250 mg. aspirin per tablet.

Wyeth Laboratories Philadelphia, Pa.

Photo professionally posed.





STATE DEPARTMENT OF HEALTH



JAMES F. SPEERS, M.D., M.P.H., COMMISSIONER

Staphylococcal Infections

ARNOLD M. REEVE, M.D., M.P.H.
Chief, Preventive Medical Service

Staphylococci are ubiquitous and troublesome infectious agents. From the public-health standpoint, the problems they cause can be separated into three categories:

A. IN THE COMMUNITY

Skin lesions of staphylococcal origin—impetigo, boils, carbuncles, abscesses and infected lacerations—are so common that they can be considered endemic. There is an inverse relationship between their frequency and the quality of an individual's personal cleanliness. Warm weather and crowding tend to increase their incidence. Isolation of infected individuals is impractical in most communities. Control measures against spread are limited, especially since perhaps 40 per cent of healthy individuals may be nasal carriers of staphylococci. Persons with frankly purulent lesions should avoid contact with infants and debilitated persons.

B. IN THE HOSPITAL NURSERY

Staphylococci in the nursery can be spread quite easily from one baby to another. Impetigo neonatorum or infections of the umbilical cord may cause manifest illness in many or all of the babies. The mother also can be infected by her child. Breast abscesses, pneumonia, septicemia and meningitis are serious but fortunately infrequent manifestations of infections acquired in the nursery. All too frequently the child may develop staphylococcal infections after he has gone home. Primary emphasis must therefore be placed on preventing the spread of staphylococci in the nursery. All known or suspected cases must be isolated immediately. Personnel with even minor staphylococcal lesions must be prohibited from entering—much less working in—the nursery. Scrupulously good aseptic technique and adequate handwashing by nursery personnel are essential in preventing spread. Hexachlorophene washings may help. Alternate use of two nurseries, and thorough cleaning after each use, has shown good results. Hospital infection committees are important in detecting hospital-acquired infections. Particular attention must be given to detecting infections that appear after the mother and infant's discharge from the hospital.

C. ON THE HOSPITAL MEDICAL OR SURGICAL WARDS

On hospital wards, staphylococcal infections may present in forms ranging from furuncles or simple stitch abscesses to full-blown suppurative postoperational wounds, purulent bed sores or fulminant pneumonias and septicemias. Any wound discharge may transmit the organism. Healthy nasal carriers among hospital personnel or visitors can serve to contaminate patients. The prime preventive measure is strict enforcement of aseptic techniques. All known or suspect cases must be isolated promptly. Soiled dressings must be safely handled and disposed of by burning. Rooms occupied by infected patients should be given terminal cleanings. Needless to say, measures taken when propagation is detected must be more intense, and investigation must be very penetrating.

A Soft Touch . . . for Disease Spread!!

Two recent articles in medical literature have reported the spread of bacteria which infected patients on intensive care wards and the source of infective organisms was traced to contaminated hand lotion. Nurses and other attendants of the wards were careful about handwashing, but they used hand lotion after washing their hands. Since the hand lotion was contaminated, what they did in effect was to coat their clean hands with a contaminated layer of lotion. They then ministered to their patients, and the bacteria from their contaminated hands spread to the patients. This procedure is analogous to a surgeon's carefully scrubbing his hands and then donning a pair of dirty gloves before performing an operation.

Investigations of various hand lotions in use in hospitals have shown high concentrations of bacteria in unopened bottles. Two of the hand lotions were nationally-distributed brands, and the unopened bottles had been obtained from different retail outlets in two separate communities.

The message from these two articles is a clear and important one: Hand lotions are not sterile! Unsterile hand lotions applied to clean hands

change clean hands into contaminated ones. Contaminated hands spread infection. If clean hands are needed for a task, do not use hand lotion after preparing your hands.

"Do You Wear a Seat Belt?"

The following is a "Letter to the Editor" written by Dr. Richard P. Keating of Ridgewood, N. J., which appeared in the May 2, 1968, issue of the NEW ENGLAND JOURNAL OF MEDICINE.

To the Editor: We physicians tend to overlook the educational value of a comprehensive medical history. A patient whose history has been taken more than once begins to appreciate which symptoms and which habits his physician considers significant. The history, moreover, should not be held immutable but should be adapted to current medical knowledge and the changing environment. Regrettably, revisions of the list of questions asked by many physicians tend to occur at the approximate frequency of amendments to the United States Constitution.

To my list, I have added a question that strikes a small blow for greater automotive safety. After the question on exercise and before the ones about allergy, I ask, "Do you wear a seat belt?"

The factual answers are about what one would expect—roughly a third say, "Yes," a third, "No," and a third, "Sometimes"—but the emotional responses are fascinating. Habitual seat-belt users generally accept the question as reasonable, and reply without comment. Many non-users are startled and respond in different ways. Frequent ploys are (defensively) "You mean . . . in the car?" and (aggressively) "Do *you* wear one, Doctor?" Some non-users brood through several questions and then interrupt with, "What did you ask about seat belts for?" This sets the stage for a brief lecture on the distressing frequency of automobile accidents among my patients, the reduction brought about in the number and severity of injuries if seat belts are worn and, if time permits, anecdotal histories of patients who believe their lives were saved by seat belts.

An insight into the personality patterns of nonusers has been glimpsed. I have found a negative correlation between the moderate-to-heavy consumption of coffee, alcohol and tobacco, on one hand, and the use of seat belts on the other—a correlation that might prove to be the subject of useful psychologic research.

Judging from the emotional impact of the question, it is reasonable to assume that some nonusers of seat belts have been converted at last to the "sometimes" group, and that, in time, some injuries will be averted or diminished. Physicians should consider adding the question to their medical histories.

RICHARD P. KEATING, M.D.

Ridgewood, N. J.

Morbidity Report for Month of November, 1968

Diseases	Nov. 1968	Oct. 1968	Nov. 1967	Most Cases Reported From These Counties
Amebiasis	0	0	1	
Aseptic meningitis	0	0	0	
Brucellosis	4	0	4	Linn, Scott
Chancroid	0	0	0	
Chickenpox	727	360	441	Bremer, Buena Vista, Dubuque, O'Brien, Warren
Diphtheria	0	0	0	
Encephalitis (type unspec.)	2	1	0	Johnson, Washington
Food intoxication	0	0	0	
Gonorrhea	415	288	306	Urban counties
Histoplasmosis	4	0	6	Black Hawk, Lee, Taylor
Infectious hepatitis	39	27	29	Black Hawk, Lee Pottawattamie
Influenza (confirmed)	1	0	0	Polk
Malaria	1	1	0	Polk
Measles	4	5	14	Pottawattamie, Scott
Meningitis, H. influenzal	1	0	0	Johnson
Meningitis (type unspec.)	3	1	3	Dubuque, Harrison, Pottawattamie
Meningococcal meningitis	2	1	3	Harrison, Muscatine
Mumps	930	363	1255	Scattered
Poliomyelitis	0	0	0	
Psittacosis	0	0	0	
Q fever	0	0	0	
Rabies in animals	7	4	10	Calhoun, Chickasaw, Emmet, Pocahontas, Polk, Winnebago
Salmonellosis	23	12	6	Appanoose, Dubuque, Polk
Scarlet fever	538	416	513	Benton, Jefferson, Johnson
Shigellosis	6	12	5	Johnson, Polk, Wapello
Smallpox	0	0	0	
Syphilis	66	46	46	Scattered
Tetanus	0	0	1	
Tuberculosis	11	8	15	Black Hawk, Polk
Typhoid fever	0	0	0	
Whooping cough	9	2	16	Scattered

Help your central office to maintain an accurate mailing list. Send your change of address promptly to the JOURNAL, 1001 Grand Avenue, West Des Moines, Iowa 50265.

Help the Needy!



A patient of advancing years may appear to "have everything," but may well be in need—*medically*. You know the symptoms. She's tired most of the time. Though there's nothing wrong with her organically, she suffers from general malaise. Lassitude has become her way of life . . . vague aches and pains her major concern.

Such a patient has entered the "Mediatric Age"—that stage of her life in which she's an ideal candidate for MEDIATRIC. This preparation provides the anabolic benefits of gonadal steroids, plus a gentle mood uplift and the nutritional support she's apt to need. MEDIATRIC is intended to help keep her more alert and active, and relieve general malaise . . . to help restore that sense of physical and emotional well-being that the elderly *deserve* to enjoy.

The estrogen component in MEDIATRIC is PREMARIN® (conjugated estrogens-equine), the orally active, natural estrogen so widely prescribed for its physiologic and metabolic benefits. The combination of estrogen and *methyltestosterone* can help maintain anabolic balance to forestall premature degenerative changes related to estrogen deficiency. MEDIATRIC also supplies a small amount of *methamphetamine HCl* to provide a gentle mood uplift, and nutritional supplements specially selected to meet the needs of the aging.

CONTRAINDICATION: Carcinoma of the prostate, due to methyltestosterone component.
WARNING: Some patients with pernicious anemia may not respond to treatment with the Tablets or Capsules, nor is cessation of response predictable. Periodic examinations and laboratory studies of pernicious anemia patients are essential and recommended.
SIDE EFFECTS: In addition to withdrawal bleeding, breast tenderness or hirsutism may occur.
SUGGESTED DOSAGES: *Male and female*—1 Tablet or Capsule, or 3 teaspoonfuls Liquid, daily or as required.
In the female: To avoid continuous stimulation of breast and uterus, cyclic therapy is recommended (3 week regimen with 1 week rest period—Withdrawal bleeding may occur during this 1 week rest period).
In the male: A careful check should be made on the status of the prostate gland when therapy is given for protracted intervals.
SUPPLIED: No. 752—MEDIATRIC Tablets, in bottles of 100 and 1,000.
No. 252—MEDIATRIC Capsules, in bottles of 30, 100, and 1,000.
No. 910—MEDIATRIC Liquid, in bottles of 16 fluidounces.

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Conjugated estrogens-equine (PREMARIN®)	0.25 mg.	0.25 mg.
Methyltestosterone	2.5 mg.	2.5 mg.
Methamphetamine HCl	1.0 mg.	1.0 mg.
Cyanocobalamin	2.5 mcg.	1.5 mcg.
Intrinsic factor concentrate	8.0 mg.	—
Thiamine HCl	—	5.0 mg.
Thiamine mononitrate	10.0 mg.	—
Riboflavin	5.0 mg.	—
Niacinamide	50.0 mg.	—
Pyridoxine HCl	3.0 mg.	—
Calcium pantothenate	20.0 mg.	—
Ferrous sulfate exsiccated	30.0 mg.	—
Ascorbic acid	100.0 mg.	—
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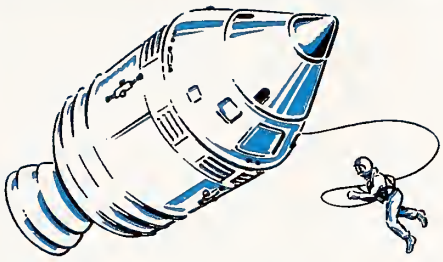
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Uro-Phosphate gives comfort and protection when inactivity causes discomfort in the urinary function. It keeps calcium in solution, preventing calculi; it maintains clear, acid, sterile urine; it encourages complete voiding and lessens frequency when residual urine is present.

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Uro-Phosphate is safe for continuous use. There are no contra-indications other than acidosis. It can be given in sufficient amount to keep the urine clear, acid and sterile. A heavy sugar coating protects its potency.

Dosage:

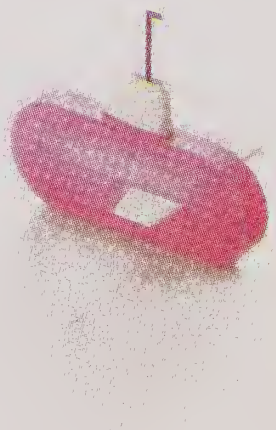
For protection of the inactive patient 1 or 2 tablets every 4 to 6 hours is usually sufficient to keep the urine clear, acid and sterile.

2 tablets on retiring will keep residual urine acid and sterile, contributing to comfort and rest.

A clinical supply will be sent to physicians and hospitals on request.

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Novahistine®
Singlet decongestant-analgesic

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DOW

Woman's Auxiliary News

Rostrum Ramblings

I found this little poem in the WORLD ALMANAC of 1968. It seems such a good thing for the start of a new year that I want to share it with you.

PROMISE YOURSELF

To be so strong that nothing can disturb your peace of mind.
To talk health and happiness to every person you meet.
To make all your friends feel that there is something in them.
To look at the sunny side of everything and make your optimism come true.
To think only of the best, to work only for the best and expect only the best.
To be just as enthusiastic about the success of others as you are about your own.
To forget the mistakes of the past and press on to greater achievements of the future.
To wear a cheerful countenance at all times and give every living creature you meet a smile.
To give so much time to improvement that you have no time to criticize others.
To be too large for worry, too noble for anger, too strong for fear and too happy to permit the presence of trouble.

There does seem to be, though, "the presence of trouble"—a threat most serious to those most precious to us, our children. Glue sniffing, marijuana, LSD, and all the other "in" things to try are not in some far-away place. They are here, now, and must be subjected to the bright light of education and reason. Go into the schools, the church groups, teen clubs and anywhere else you can get an audience. Take with you information from the Packaged Programs and films available to you. Write to your state committee chairman or to me for more information. (Names and address are in the YEARBOOK.)

As we enter another calendar year, remember the poem, "Promise Yourself." A Very Happy New Year to each of you with the warmest wishes for all good things in 1969 and the years to come. I'll welcome the opportunity to visit your communities, your meetings or your homes for a little chat.

—LENOR S. BISHOP (MRS. JAMES F.)
President

Suggested Community Health Projects From "A" to "Z"

Annual physical examinations for the middle-aged.
Blood donor recruitment programs.
Community Health week.
Disease detection programs.
Emergency Medical Alert identification tags furnished for children needing them.
First aid training programs.
GEMS programs.
Health fairs.
Immunization programs.
Join with schools in carrying on vision and hearing tests.
Kits containing health education material from AMA for Welcome Wagons, schools, etc.
Local, state and national health problems currently in the news should find the Auxiliary ready to go into action. Keep informed.
Maintain lists for the elderly which contain information on health care and recreational facilities available in the area.
Narcotics addiction, hallucinogens, etc. Present Package Programs.
Older citizens' programs on hygiene, nutrition, home safety, meals service, friendly visitors.
Physical fitness programs for all ages.
Quackery, fad diets, health frauds—programs presenting experts on these subjects.
Retiree programs—counseling for both pre-retirement and post-retirement.
Smoking—its dangers as a health hazard. Programs for youth and adults.
TODAY'S HEALTH GUIDE and TODAY'S HEALTH subscriptions for schools, libraries, etc.
Urban and rural problems in safety, poison prevention, etc.
Venereal disease. Present Package Programs.
Water and air pollution programs.
Xtra effort and attention directed at alcoholism. Present Package Programs.
Youth programs such as sex education, hygiene, nutrition, athletic injuries.
Zealous cooperation with all recognized health-related projects needed in the area.

Around the Hawkeye State

Black Hawk County

The Black Hawk County Auxiliary held its December dinner meeting in the executive room at the Waterloo Airport. Each member was asked to bring a favorite Christmas recipe.

Cerro Gordo County

A Career Day was sponsored jointly by the Auxiliary to the Cerro Gordo Medical Society and the Future Nurses Club of Newman High School and the Health Careers Club of the Mason City High School, late in November. Students from schools in a large segment of the northern Iowa area were invited to attend. Representatives of the various health careers spoke to those interested in special fields .

The president and vice-president of FNC and the president of the Health Careers Club helped plan the day, with a committee from the Auxiliary.

Clinton County

The Clinton County Medical Auxiliary held its annual Charity Ball at the Clinton Country Club on December 7. The theme for the formal affair was "Silver Bells." Mrs. Dale Weber was chairman of the Ball, and Mrs. William Meyer was invitations chairman. Mrs. George York is president of the Auxiliary.

Des Moines County

Two senior nursing students at Burlington Hospital recently received $100 grants in aid from the Des Moines County Medical Auxiliary.

Jefferson County

The Jefferson County Medical Auxiliary held a successful Homebound Handcraft Sale in Fairfield, the latter part of November. The items offered for sale were from four major areas of handcraft: sewing, weaving, ceramics and woodworking.

Polk County

The Woman's Auxiliary wishes to thank all of the doctors who have participated in the "Holiday Greeting Card" project. Profits will be distributed among several organizations, the names of which will be announced in the February issue of the WOMAN'S AUXILIARY NEWS.

The Woman's Auxiliary has contributed $50 to the Iowa Society for the Prevention of Blindness, to be used in the vision screening program of the public schools, in which our Auxiliary members participate.

Since last May, memorial contributions have been sent to AMA-ERF and cards of sympathy have been sent to the families of Dr. John W. LaMar, Dr. John C. Parsons, Dr. George A. Jardine, Dr. Robert L. Parker, Dr. Fred Sternagel, Dr. Loren G. Peterson, Dr. Samuel J. Zoeckler and Dr. Maurice H. Noun; and to HELF in memory of Mrs. C. L. Putman, Mrs. William Chase, Sr., Mrs. John W. LaMar, Mrs. Tom D. Throckmorton and Mrs. Loren G. Peterson.

—MRS. THOMAS A. BOND
Publicity Chairman

You Can Drown in Winter

An article entitled "You Can Drown in Winter" appeared in the November issue of TODAY'S HEALTH. In case you did not see that issue, it is being briefly reviewed here.

An increase in winter drownings this year is feared by safety experts. An unprecedented number of people are taking to binges of skiing, sledding, skating, kiteskating, iceskating, curling and fishing.

The snowmobile is making many bodies of ice look like bumpercar rinks. The versatility of our ice expanse is unlimited.

At the first winter-sports injuries conference, held at the University of Wisconsin in January, 1967, the country's foremost medical authorities on winter-sports accidents discussed ice breakthroughs and how to prevent them. They pointed out the drowning hazards of two winter sports growing fast in popularity—snowmobiling and cross-country skiing. Mr. T. W. Koskella, of the U. S. Forest Service, predicts that snowmobiling will create for winter diversion what boating has done for summer recreation.

People would be well advised to heed the safety pledge of an organization of nearly 400 active U. S. snowmobile clubs. It reads "I will not cross or travel on frozen lakes and streams until the ice is thick enough to support the weight of my snowmobile and my passengers. When traveling in new areas I will seek advice on ice conditions, I will stay on marked trails or marked roads open to snowmobiles."

Ice fishing is a fast-growing sport. One important precaution for you to observe if you take it up is to keep your car off the ice. If you insist, leave windows open, and be prepared to bail out. The average auto will float from four to five minutes. Always carry some spiked object around your neck or in another place where it is accessible, so that you can hook it in the ice to assist you in getting out of the water. Remember that the ice may break as you struggle to get out on to it; so don't panic, and use care. Tests show that in freezing water a person may collapse and drown in 15 minutes.

Most important of all, get the November, 1968, issue of TODAY'S HEALTH, and read carefully the article "You Can Drown in Winter." The knowl-

edge you'll acquire may not only save the life of one of your dear ones, but your own as well.

—MRS. MAY D. WEIS
Safety and Disaster Chairman

In Case of Fire

Because of several serious home fires recently in Iowa, the following recommendations are timely.

• It is your responsibility to plan your family's escape from fire.

Fires in homes result in 6,500 deaths annually.

• Small children try to hide in a burning house, instead of escaping.

The following things should be remembered:

I. Don't panic.
II. Keep your bedroom door closed during sleeping hours.
III. Plan an alternate escape route that you can use if doors are blocked.
IV. In smoke—keep low, take short breaths, cover your mouth with a cloth.
V. Meet your family outside—do not reenter during the fire to save valuables.
VI. Practice your escape route so that your children understand what to do in case of fire: Remember—small children, when frightened, will seek shelter under a bed or in a closet.
VII. Windows are usually the best escape routes.
VIII. Call the fire department after you have safely reached the outside. Teach your children to call the fire department in case of fire.

Shoulder Belts

Have you been making use of the shoulder belts in your car?

The National Highway Safety Bureau estimates that in the cars which have these belts—standard equipment in all new cars since January 1, 1968, by federal requirement—the use rate is less than 5 per cent.

Studies indicate that the shoulder belt, used in combination with the lap belt, reduces a person's chances of being killed or seriously injured in an accident by 70 to 80 per cent!

"Casting"

A happy Auxiliary New Year to all the faithful who are looking forward to growth and service. Long years ago Booker T. Washington appealed to Southern black and white people to realize their opportunities to help each other in the South. He told the story of a lost ship's crew signaling for water at the mouth of the Amazon River. The answer from a passing ship was, "Cast down your bucket where you are." That is my battle cry for 1969 on membership. If you have an organized Auxiliary, but aren't 100 per cent, do some intensive casting in your own locality. If there are doctors' wives around who are not already members of your group or members-at-large of the State Auxiliary invite them to join, or send their names to me or the M.A.L. Committee:

Mrs. Arthur T. Austin, 901 E. Highland, Ottumwa 52501.

Mrs. G. B. Bristow, 117 S. Park St., Osceola 50213.

Mrs. Elmer A. Larsen, 211 E. State, Centerville 52544 so that we may tell them the Auxiliary story.

We have 1281 members, and a potential of 2,415. "Cast down your bucket!" My appreciation and best wishes to all who are concerned about Auxiliary membership.

—MARION R. PREWITT (MRS. L. H.)
Membership Chairman

Meet the Ladies

Auxiliary members will have an opportunity to get acquainted with the wives of members of the Iowa General Assembly at a continental breakfast and program at 10:00 a.m., on February 6 at the Iowa Medical Society Building.

The guest speaker will be Dr. Elmer M. Smith who recently returned from Vietnam, where he served as Chief Medical Officer of the Da Nang Prefectorate. He will tell about and show pictures of his experiences in providing American medical care to the people of Vietnam.

Your invitation to this special event is enclosed with this issue of WOMAN'S AUXILIARY NEWS. Make your reservations now for a morning of good company and a stimulating and informative program.

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

President—Mrs. J. F. Bishop, 212 Hillcrest Avenue, Davenport 52803

President-Elect—Mrs. D. W. Coughlan, 5410 Grand Avenue, Des Moines 50312

Recording Secretary—Mrs. E. D. Wiley, 30 West Kings Highway, Sioux City 51104

Treasurer—Mrs. J. F. Veverka, Box 324, Prairie City 50228

Editor of THE NEWS—Mrs. W. B. Eidbo, 1415 Thompson Avenue, Des Moines 50316

Assistant Editor—Mrs. D. A. Mater, 302 South Fourth Street, Knoxville 50138



Personals



At the October meeting of the Cherokee County Fire and Rescue Squad, held at Aurelia, **Dr. M. D. Hayden** showed a moving picture on shock, and conducted a question-and-answer period. Plans for a first-aid training program were announced.

Dr. Elmo E. Gamet, of Lamoni, was one of the guest speakers at a medical meeting of physicians from Fremont, Mills and Page Counties, in Iowa, from Atchison County, Missouri, and from Otoe County, Nebraska, at Grape Community Hospital, Hamburg, on December 4.

On November 9, at a meeting of the Women's Federated Club of Newell, **Dr. T. E. Shea,** of Storm Lake, spoke on risk factors indicating susceptibility to coronary disease.

Emphysema, its causes, symptoms and treatment, were the topics discussed by **Dr. R. R. Hansen** at the November 26 meeting of the Storm Lake Rotary Club, held at the Bradford Motor Inn.

Dr. C. Scott Linge, of Fayette, was elected to membership on the Board of Trustees of Upper Iowa College on November 5, and at the same meeting was made secretary of that body. The College is in Fayette.

Dr. Herbert Nelson and **Dr. Patrick Campbell,** psychiatrists, and **Mr. Floyd Sarff,** a social work consultant, all from the Iowa Mental Health Authority, in Iowa City, and **Mr. Ralph Rieas,** a recreation therapy consultant at the U. of I., were in Sioux City on November 25, at the invitation of the Woodbury County Board of Supervisors to tour the County Home and the River Heights Halfway House, and to meet with the executive committee of Siouxland Mental Health Services. Voters in Woodbury County are to be asked, on January 14, to approve bonds for the construction of a Community Services Center and an addition to the County Home. The visitors agreed that more space is needed for the programs now under way or contemplated. One of the latter would be an outpatient center operated by Siouxland Mental Health Services, the twenty-second such clinic in Iowa.

"Please Say Ah-Men," a practical interprofessional conference for physicians and clergymen, was held on December 4 at the Mental Health Institute in Mt. Pleasant. **Dr. Beverley Mead,** chairman of the Department of Psychiatry at Creighton, spoke on "What the Physician Expects of the Clergyman," and **Rev. Wayne E. Oates,** professor of psychology of religion at Southern Baptist Theological Seminary, Louisville, outlined "What the Clergyman Expects of the Physician." **Dr. Delmer Eggert,** clinical director of the Mt. Pleasant MHI, and members of his staff and their families, gave a demonstration of family therapy. Other physicians who share in planning the meeting are **Dr. Walter Fox, Dr. Robert Wettach** and **Dr. Wm. Megorden,** of Mt. Pleasant, and **Dr. William R. Vaughan,** of New London, president of the Henry County Medical Society.

Dr. Cecil W. Seibert, a Waterloo obstetrician and gynecologist and now the president of the Iowa Medical Society, is to lead a delegation of Iowa physicians, next year, on a 21-day tour of Belgium, Sweden, the Soviet Union, Poland, Czechoslovakia and Germany. It is to leave on September 17, 1969. This People-to-People mission is invitational, and is operated by the Goodwill People-to-People Travel Program, Kansas City, Missouri.

Dr. George N. Bedell, a professor of internal medicine at the U. of I. College of Medicine, was the guest speaker at the semi-annual board meeting of the Lee County Tuberculosis and Health Association, December 3, in Keokuk.

At the November 21 meeting of the North Central Chapter of the Iowa Credit Union League, in Mason City, **Dr. James Hendricks**, of Clear Lake, told of his experiences in Vietnam while on the AMA's Volunteer Physicians program.

Dr. R. E. Weland, a Cedar Rapids pathologist, spoke at the November 20 meeting of the Cedar County Chapter of the American Cancer Society, in Tipton.

Dr. Herbert Gerstman closed his general practice in Cedar Rapids on November 25, after 29 years. He planned to move to Boulder, Colorado, in mid-December, and said that after a time he would seek part-time medical work there. Dr. Gerstman is an amateur photographer and likes mountain hiking, and Mrs. Gerstman is a pictorial artist—pursuits for which Colorado is an ideal locale.

The Sac City Kiwanis Club heard a lecture on arteriosclerosis, in mid-November, by **Dr. D. R. Youberg.**

Dr. Robert Eggers, of Nevada, spoke to the high school students at Maxwell, recently, on venereal diseases and related topics.

On November 27, **Dr. Walter Fox**, superintendent of the Mental Health Institute at Mt. Pleasant, spoke on "Mental Health Today and Tomorrow" at a meeting of the Henry County Chapter of the American Association of Retired Persons.

The Mental Health Institute at Independence conducted a workshop for nursing-home employees on November 20 and 21. **Dr. S. M. Korson**, the superintendent, said that the topics—nursing services, diet, activities therapy and housekeeping—would be identical on the two days. The repetition was necessary so that all of the nursing home personnel in the area might have opportunities to attend.

Dr. P. J. Leehey, of Independence, attended the 53rd annual assembly of the Postgraduate Medical Association of North America, November 11-13, in Pittsburgh. Mrs. Leehey accompanied him there.

At the November 18 meeting of the Belle Plaine Lions Club, **Dr. N. C. Knosp**, a general practitioner there, discussed the common cold and the various flu viruses.

A leading article in the DES MOINES SUNDAY REGISTER for November 24 on the use of drugs by young people in Cedar Rapids quoted **Dr. Charles Wellso**, a psychiatrist, as saying that hospitalizations in connection with drug use had increased greatly there, over the past two years. **Dr. Thomas W. Murphy**, also a psychiatrist and the director of the Linn County Mental Health Center, was quoted as saying that 5 per cent of the teen-agers were sniffing glue—that some of those involved were 12 or 13 years of age, but most were 16, 17 or 18.

Dr. Ronald Lauer, a professor of pediatrics at the U. of I., has been appointed to the Committee of the Section on Cardiology of the American Academy of Pediatrics.

Dr. R. S. Anspach, of Mitchellville, reported to police that his medical bag was stolen from his car while it was parked in a lot at Iowa Lutheran Hospital between 8 and 9 a.m. on Thursday, November 21. A car window had been broken so that the thief could gain entrance. The doctor said that the bag contained depressant and stimulant pills and some antibiotics, as well as instruments.

At the annual meeting of the American Cancer Society, Iowa Division, Inc., in Des Moines on November 2, **Dr. William Steinbeck**, of Keystone, received a five-year citation for his work as educational chairman of the organization's Benton County chapter.

Dr. and Mrs. Ben T. Whitaker and **Dr. and Mrs. A. W. Puntenney**, of Boone, attended the annual scientific session of the Interstate Postgraduate Medical Association in Pittsburgh in mid-November. Dr. Whitaker has been a member of its board of trustees for 17 years, and Dr. Puntenney is a vice-president for 1968. On Monday, November 11, a dinner was held there in honor of Dr. and Mrs. Whitaker's wedding anniversary.

Care of injured persons was the theme of a 1½ day conference for 107 municipal hospital, industrial, civil defense, law enforcement and public health workers from northwest Iowa in Estherville on November 12 and 13. The fourth program of its kind in Iowa during the past 18 months, it dealt with establishment of an airway, mouth-to-mouth resuscitation, stopping blood-loss, and transportation of patients. The instructors included Estherville physicians **H. A. Lindholm, M.D., A. E. Montgomery, M.D.**, and **H. J. Leonard, M.D.**, and U. of I. faculty members **Regino Ur-**

gena, M.D., an assistant professor of anesthesiology, **C. E. Hartford, M.D.,** an associate in surgery, **Franklin DeRusso, M.D.,** an associate in surgery, **John Cramer, D.D.S.,** a resident in oral surgery, **Henry Gerber, M.D.,** an instructor in neurosurgery, **H. L. Miller, M.D.,** a lecturer in obstetrics, **R. D. Holmsten, M.D.,** a member of the cardiology laboratory staff, and **C. F. Johnson, M.D.,** an assistant professor of pediatrics. **John Powers, M.D.,** president of the Emmett County Medical Society, and **Robert T. Tidrick, M.D.,** head of the U. of I. Department of Surgery, coordinated the program.

Dr. Richard T. Smith, an internist who practiced in Davenport until a couple of years ago, and since then had been practicing in Palm Springs, California, joined the staff of the Mental Health Institute at Independence a few months ago.

Dr. Nicholas Rossi, an associate professor of surgery at the U. of I. College of Medicine, spoke to the Linn County Association of Medical Assistants, November 13, at the Montrose Hotel in Cedar Rapids, on "Guidelines for Cardiac Transplantation."

On November 12, **Dr. Frederick Brush,** a Mason City urologist, told the Shenandoah Rotarians and their wives and guests about some of his experiences while serving on the hospital ship *Hope*. He has served two tours of duty with the ship, the first one in Colombia, and the second one in Ceylon.

Dr. William B. Bean, head of internal medicine at the U. of I. College of Medicine, is the author of a chapter entitled "The Medical Profession and the Drug Industry," in the recently marketed book ETHICAL ISSUES IN MEDICINE, edited by **E. Fuller Torrey, M.D.,** a Stanford University psychiatrist, and published by Little, Brown and Company, Boston.

As the result of a nationwide competition conducted by the National Institute of Arthritis and Metabolic Diseases, **Dr. Edson Lee Forker,** an assistant professor of internal medicine at the U. of I. College of Medicine, has been chosen to receive a research career development award. He conducts research in the physiology of the liver and is a clinical teacher in the division of gastroenterology. Specifically, his studies have concerned bile formation and the fundamental properties of cell membranes. In 1967 he was named a Markle scholar in academic medicine.



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Dr. Hiram Leonard, a surgeon, is practicing in Estherville with **Drs. John Powers** and **A. E. Montgomery.** Dr. Leonard took his M.D. degree at the University of Iowa, served his internship at the Latter Day Saints Hospital, in Salt Lake City, and went to Estherville immediately after finishing his residency at University Hospitals, Iowa City.

At a recent meeting of the medical staff of the Pocahontas Community Hospital, **Dr. James Slattery**, of Pocahontas, was elected chief of staff; **Dr. James Gannon**, of Laurens, vice-president; and **Dr. John M. Rhodes**, of Pocahontas, secretary-treasurer for the coming year.

Dr. Walter Fox, superintendent of the Mt. Pleasant Mental Health Institute, has been named president-elect of the 325-member Association of Medical Superintendents of Mental Hospitals.

During the morning service of the United Methodist Church of Maquoketa, on Sunday, November 10, **Dr. Ross King**, of Clinton, spoke on the use of alcohol and depressant and stimulant drugs.

Dr. Stephen G. Weiss, who has been practicing for just a few months with a group in Bettendorf, began work in Walcott early in November. He is a 1964 graduate of the U. of I. College of Medicine, he interned at the U. S. Naval Hospital in Port Smith, Virginia, and thereafter he served for two years with the Navy in the Far East.

At the December 4 meeting of the Johnson County Medical Society, **Dr. Adrian Kantrowitz,** head of surgery at the State University of New York's Maimonides Medical Center, in Brooklyn, spoke on "New Techniques in Cardiac Surgery."

Three members of the orthopedics faculty at the U. of I. College of Medicine, **Dr. Carroll B. Larson,** head, **Dr. Michael Bonfiglio,** a professor, and **Dr. Donald B. Kettelkamp,** an associate professor, are among some 130 specialists from throughout the country who have been selected to guide the National Health Program for Orthopedics, sponsored by the American Academy of Orthopedic Surgery. The study will encompass manpower requirements, the best use of allied health professions, the length of medical school training, graduate education, medical costs, research, and standards for reevaluating practicing orthopedists. Dr. Larson is a member of the executive and liaison committees, and is chairman of the liaison committee on manpower. Dr. Bonfiglio is a member of the committee on delivery of services and for disease-oriented research, and Dr. Kettelkamp is a member of the committee on undergraduate education.

A report on "Cutaneous Hazards of Farming" was given by **Dr. Richard M. Caplan,** an associate professor of dermatology at the U. of I. College of Medicine, at the annual meeting of the American Academy of Dermatology which was held in Chicago December 7-12. Dr. Caplan serves on the Academy's program evaluation committee, and is president of the Iowa Dermatological Society.

Dr. Walter M. Block, medical director of the Cedar Rapids Child-Evaluation Clinic, recently addressed a meeting of school principals, counselors and special education teachers, in Cedar Falls, on "Medical Aspects of Learning Disabilities in Children." Dr. Block also has been elected to membership in the American Academy of Cerebral Palsy.

Clyde M. Berry, Ph.D., associate director of the U. of I. Institute of Agricultural Medicine, has been made a member of the USPHS Occupational Health Advisory Committee for a three-year term. The Committee works with the PHS in coordinating the work of individuals and institutions engaged in research, prevention and treatment of occupational diseases and injuries. Specifically, it serves as a sounding board to reflect the needs of the American worker. Members of the Committee represent the fundamental sciences, medical sciences, education and public affairs.

Lucas S. VanOrden, III, M.D., an assistant professor of pharmacology at the U. of I.'s Toxicology Center, in Oakdale, is one of three Americans who presented a seminar, December 2-5, on "Neurochemical and Neuroendocrinological Methods in Brain Research" at the Jinnah Postgraduate Medical Center, in Karachi, Pakistan. The sponsoring groups were UNESCO and the International Brain Research Organization. On his way there, Dr. VanOrden spent a week in Australia presenting seminars and consulting on the assembly of microscopy apparatus at the Universities of Monash and Melbourne. On his return trip he visited the University of Lund and the Karolinska Institute, in Sweden. Dr. VanOrden took his M.D. at Northwestern University in 1956, and his Ph.D. in pharmacology at Yale in 1966.

Dr. Richard Mordaunt has announced that he will terminate his practice in Nevada on February 1, and will move to Chicago, where he will be an industrial physician for the Ford Motor Company. He has been in practice for 29 years, 22 of them in Nevada.

Addressing a meeting of Iowa legislators from a 14-county area on December 2, **Dr. Homer E. Wichern,** a Des Moines surgeon, said that instruction about alcoholism and the warning signs of that disease should be given to young people at the tenth-grade level or earlier, in school and in youth groups.

Dr. Addison W. Brown, of Des Moines, spent two successive Fridays, December 6 and 13, speaking to students at parochial schools in Cedar Rapids regarding cancer and showing the film "Smoking—Past and Present," the American Cancer Society's newest movie for sixth, seventh and eighth graders. He spoke at four schools on each of those days. **Dr. Richard Sedlacek,** of Cedar Rapids, a member of the board of the Linn County Cancer Society, spoke on Wednesday, December 11, at the one remaining parochial school served by the Public Health Nursing Association there.

Dr. Arnold Reeve, of the State Department of Health, was quoted in the BURLINGTON HAWKEYE-GAZETTE for December 5 as saying that up to November 23 only 108 cases of red measles had been reported in Iowa since January 1, 1968. Then there were reports of 35 cases among children from five to 12 years of age in the Council Bluffs area.

On December 4 **Dr. Arthur B. Cloud,** of Marshalltown, addressed the Marshall County Child Study Group, at the Anson School, on the topic "First Aid First—Panic Later."

At the December 3 meeting of the Iowa City Medical Technologists, **Dr. John C. Hoak,** an associate professor of internal medicine at the U. of I., spoke on "Diagnosis and Treatment of Hemorrhagic Diseases."

Dr. W. A. Fisher, a Creston pediatrician, spoke to the Rotary Club there, on December 2, about emotional and physical crippling. He discussed failure to learn to read, poliomyelitis, cerebral palsy, teratologic effects of German measles, rheumatic fever, mental retardation, etc.

At the December 3 meeting of the Wapello County Medical Society, at the Ottumwa Country Club, **Dr. George E. Duvoisin,** an associate consultant in cardiovascular surgery at the Mayo Clinic, spoke on "Aortic Valve Replacement."

Dr. Charles N. Hyatt, formerly a private practitioner at Corydon and now a physician at the Men's Reformatory, addressed the Rotary Club of Anamosa on December 2 regarding the physician shortage.

Dr. S. P. Leinbach, of Belmond, was appointed to the board of trustees of the Interstate Postgraduate Medical Association during the group's recent meeting in Pittsburgh.

At the November 19 meeting of the Wright County Medical Society, held in Clarion, **Dr. Walter Pribe,** a urologist at the Kersten Clinic, Fort Dodge, gave a very practical talk on office urology. He provided each of the doctors in the audience with an excellent mimeographed outline of his lecture.

The Kersten Clinic, of Fort Dodge, announces that on September 1, 1969, **Dr. Paul M. Kersten,** a psychiatrist, will begin a one-year sabbatical leave from medical practice. On that date, he will be moving with his family to the Island of Majorca in the Mediterranean, to devote his time to study and writing.

At the December 18 meeting of the Polk County Medical Society, held at the Hotel Fort Des Moines, in Des Moines, **Merle K. Løken, M.D., Ph.D.,** director of the Division of Nuclear Medicine at the University of Minnesota Medical School, discussed the practice of his specialty.

Dr. Joseph F. Veverka, who conducts a general practice at Prairie City, has become the editor of GP NEWS, the bi-monthly bulletin of the Iowa Chapter of the American Academy of General Practice.

Dr. William B. Bean, head of internal medicine at the U. of I. College of Medicine, gave the first annual Ernest J. Bruno Memorial Lecture, on December 12, at the Lenox Hill Hospital, New York City. The talk was sponsored by the De-

partment of Medicine there. His presentation was entitled "The Other Sir William Osler."

At a short course for registered nurses to be held at the Hotel Fort Des Moines, in Des Moines, on Thursday, January 30, under the sponsorship of the Iowa Heart Association, **Dr. E. A. Motto,** of Davenport, president of the IHA, will open the program; **Dr. William E. Connor,** a professor of internal medicine at the U. of I. College of Medicine, will speak on "Prevention of Heart Disease"; **Dr. L. W. Swanson,** of Mason City, will discuss "Acute Myocardial Infarction and Medical Management"; and **Dr. Paul From,** of Des Moines, will describe "The Work Evaluation Unit Program."

The medical office building occupied by **Drs. Walter C. Friday, E. P. Russell, Robert Allen** and **Norman Lowe,** at 620 North Eighth Street, in Burlington, was badly damaged by fire during the pre-dawn hours of December 6. **Dr. Herbert Tjaden** was scheduled to occupy space in the building in the near future. The fire was blamed on burglars, and Dr. Friday's office was its focal point. The structure had been ransacked, and an unsuccessful attempt had been made to break into Dr. Friday's safe.

Dr. Verne R. Heimann has been named president of St. Joseph Mercy Hospital medical staff, succeeding **Dr. R. L. Morgan. Dr. A. W. Horsley** is vice-president, and **Dr. D. M. Youngblade** is secretary-treasurer. All of them practice in Sioux City.

Two additional M.D.'s joined the faculty of the U. of I. College of Medicine in December. **Dr. Robert J. Luchi,** who received his M.D. and his specialty training at the University of Pennsylvania, and has been director of the cardiovascular research center there, assumed a professorship in internal medicine. **Dr. Richard L. DeGowin** got his M.D. degree at the University of Michigan, and since then—even during his military service—he has been at medical care and research facilities operated by the University of Chicago, most recently at the Argonne Cancer Research Hospital. He now holds an assistant professorship in internal medicine in Iowa City.

At its thirty-first annual homecoming banquet, on December 7, Briar Cliff College conferred its Alumni Community Service Award upon **Dr. George G. Spellman.** The award is given to an individual who "has shown unselfish interest and has rendered outstanding service to the college or the community." Dr. Spellman has practiced internal medicine in Sioux City since 1950.

Dr. and Mrs. C. N. Cooper, formerly of Waterloo, began a two-month tour of duty on *S.S. Hope,* at Colombo, Ceylon, December 13. They now make their home near Brainerd, Minnesota, in the summer, and at Naples, Florida, in the winter.

Dr. George Baker, an assistant professor of pediatrics at the U. of I., was installed as president of the Iowa City Kiwanis Club on December 4.

Dr. Richard G. Boeke, of Osage, has been elected to active membership in the American Academy of General Practice.

Deaths

Dr. James W. Martin, 65, who had practiced in Holstein for 30 years, died at the Sioux Valley Hospital, in Cherokee, after a long illness, on November 30.

Dr. Floyd D. Christensen, 45, who engaged in general practice at Remsen from 1949 to 1966, died on November 26 at his residence in Sioux City. For the past two years he had received twice-weekly dialysis from the artificial kidney at St. Vincent Hospital, Sioux City. Burial took place at Remsen.

Dr. Fred M. Sternagel, 73, who had engaged in general practice in Des Moines and West Des Moines since 1934, died at Iowa Methodist Hospital on November 15 after a long illness. He was president of the Iowa Medical Society 1957-1958, and served as secretary of the State Board of Health from 1946 to 1954.

Dr. Roy Malone Mayne, 72, who practiced in Greene, Iowa from 1922 to 1927, and practiced in Duluth from then until 1940, died in St. Paul on May 28, 1968. He was a 1921 graduate of the U. of I. College of Medicine.

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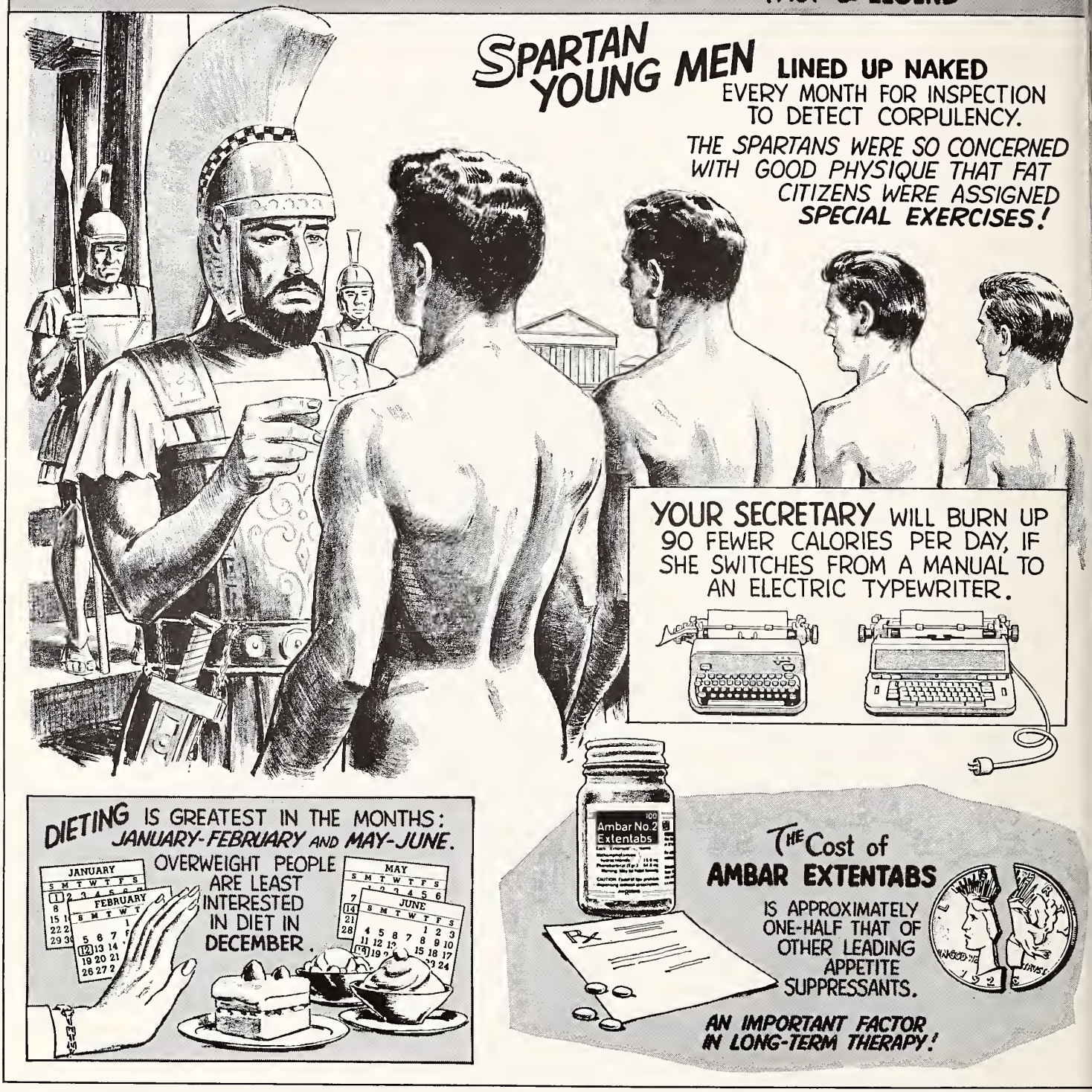
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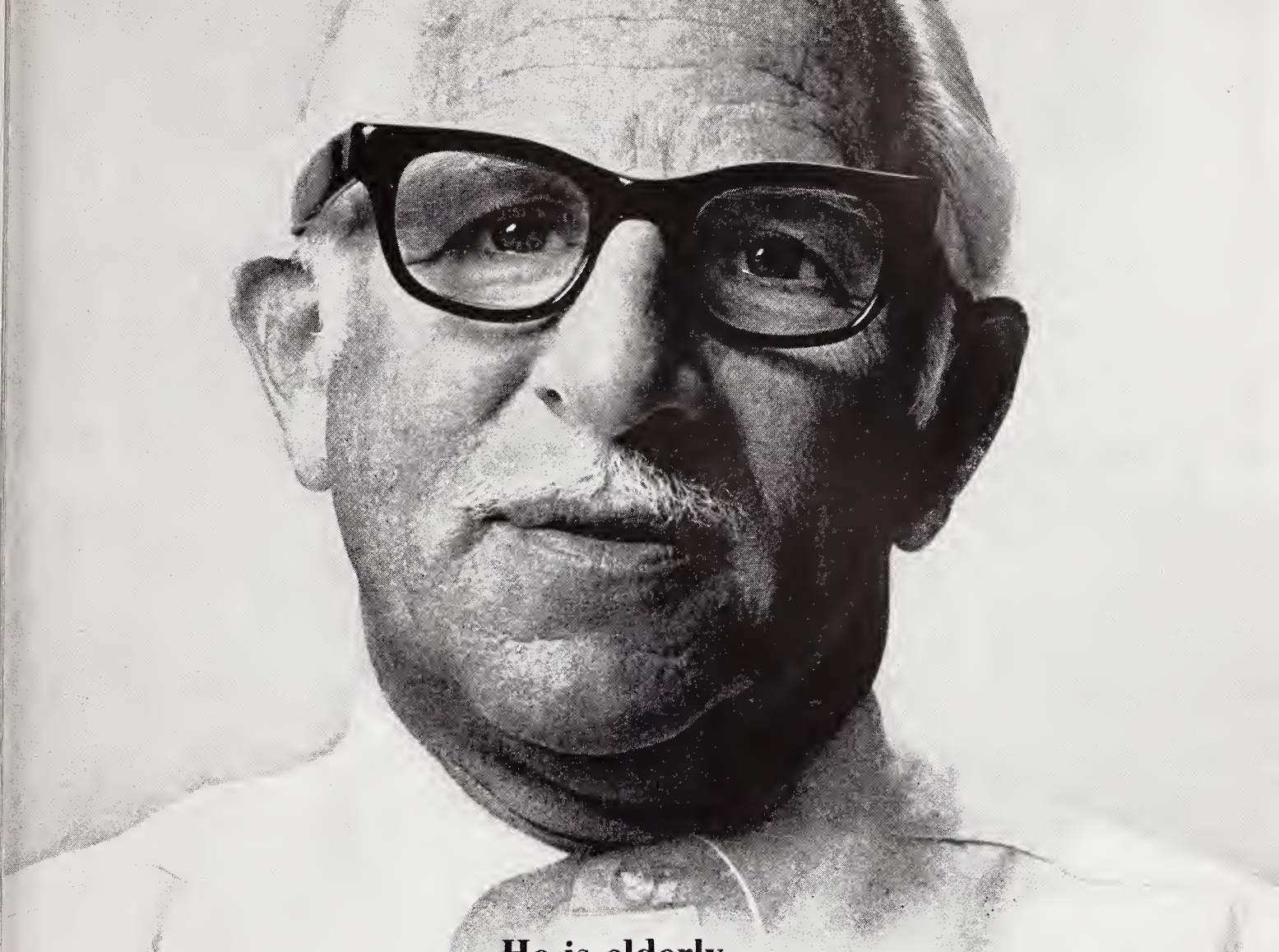
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Warning: In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated, and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort. Necessary subsequent courses of treatment with tetracyclines should be carefully observed.

Precautions: Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

Side Effects: Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes; a rare case of exfoliative dermatitis has been reported. Photosensitivity; onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose related. Transient increase in urinary output, sometimes accompanied by thirst (rare). Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth—dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Demethylchlortetracycline may form a stable calcium complex in any bone-forming tissue with no serious harmful effects reported thus far in humans.

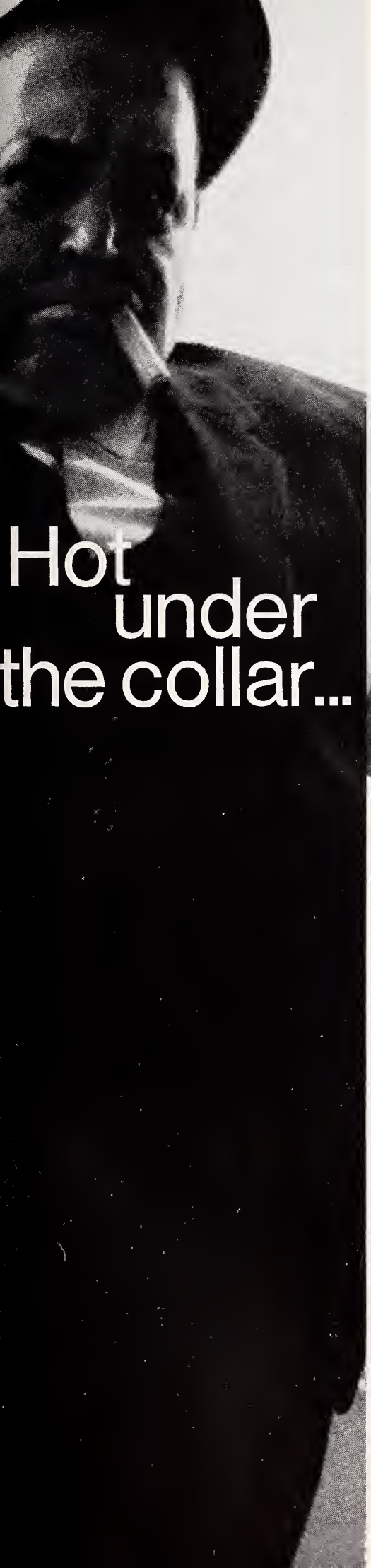
Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products. Treatment of streptococcal infections should continue for 10 days, even though symptoms have subsided.

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To lower blood pressure
and allay anxiety in hypertension.

For brief summary of prescribing information, see next page.

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Indications: Hypertension.
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Warning: With the administration of enteric-coated potassium supplements, which should be used only when adequate dietary supplementation is not practical, the possibility of small-bowel lesions (obstruction, hemorrhage, and perforation) should be kept in mind. Surgery for these lesions has frequently been required and deaths have occurred. Discontinue coated potassium-containing formulations immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Discontinue one week before electroshock therapy, and if depression or peptic ulcer occurs.
Use in pregnancy: Because chlorthalidone may cross the placental barrier and appear in cord blood and thiazides may appear in breast milk, this drug should be used with care in pregnant patients and nursing mothers. When used in women of childbearing age, the potential benefits of the drug should be weighed against the possible hazards to the fetus. Use of chlorthalidone may result in fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult. Increased respiratory secretions, nasal congestion, cyanosis and anorexia may occur in infants born to reserpine-treated mothers.
Precautions: Antihypertensive therapy with this drug should always be initiated cautiously in postsympathectomy patients and in patients receiving ganglionic blocking agents, other potent antihypertensive drugs, or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. To avoid hypotension during surgery, discontinue therapy with this agent two weeks prior to elective surgical procedures. In emergency surgery, use, if needed, anticholinergic or adrenergic drugs or other supportive measures as indicated. Because of the possibility of progression of renal damage, periodic kidney function tests are indicated. Discontinue if the BUN rises or liver dysfunction is aggravated. Hepatic coma may be precipitated. Electrolyte imbalance, sodium and/or potassium depletion may occur. If potassium depletion should occur during therapy, the drug should be discontinued and potassium supplements given, provided the patient does not have marked oliguria.
Take particular care in cirrhosis or severe ischemic heart disease and in patients receiving corticosteroids, ACTH, or digitalis. Severe salt restriction is not recommended. Use cautiously in patients with ulcerative colitis or gallstones (biliary colic may be precipitated). Bronchial asthma may occur in susceptible patients.
Adverse Reactions: The drug is generally well tolerated. The most frequent side effects are nausea, gastric irritation, vomiting, diarrhea, constipation, muscle cramps, headache, dizziness and acute gout. Other potential side effects include angina pectoris, anxiety, depression, bradycardia and ectopic cardiac rhythms (especially when used with digitalis), drowsiness, dull sensorium, hyperglycemia and glycosuria, hyperuricemia, lassitude, restlessness, transient myopia, impotence or dysuria, orthostatic hypotension which may be potentiated when chlorthalidone is combined with alcohol, barbiturates or narcotics, leukopenia, aplastic anemia, skin rashes, thrombocytopenia, agranulocytosis, nasal stuffiness, increased gastric secretions, nightmare, purpura, urticaria, ecchymosis, weakness, uveitis, optic atrophy and glaucoma, and pruritus. Eruptions and/or flushing of the skin, a reversible paralysis agitans-like syndrome, blurred vision, conjunctival injection, increased susceptibility to colds, dyspnea, weight gain, decreased libido, dryness of the mouth, deafness, anorexia, and pancreatitis when epigastric pain or unexplained G.I. symptoms develop after prolonged administration. Jaundice, xanthopsia, paresthesia, photosensitization and necrotizing angiitis are possible.
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COMING MEETINGS

IN STATE

Feb. 11-14 **Refresher Course for General Practitioner,** U. of I. College of Medicine, Iowa City.

CONTINENTAL U. S.

Feb. 3-5 **Institute on Disaster Planning sponsored by California Hospital Association of Western Hospitals.** Beverly Hilton Hotel, Beverly Hills.

Feb. 3-5 **American College of Surgeons, Sectional Meeting,** Sheraton-Fontenelle Hotel, Omaha.

Feb. 3-7 **Postgraduate Course on High Risk Infant Care sponsored by University of Colorado School of Medicine,** Denver.

Feb. 5-7 **Annual Meeting of American Academy of Occupational Medicine,** Sheraton-Plaza, Boston.

Feb. 8 **Regional Meeting of Illinois Internists sponsored by American College of Physicians,** St. Nicholas Hotel, Springfield.

Feb. 10-11 **Care of the Risk Newborn,** University of Nebraska Medical Center, Omaha.

Feb. 13-15 **Society of University Surgeons,** Hotel Fontainebleau, Miami Beach.

Feb. 17 **Postgraduate Course on Cardiac Resuscitation,** University of Nebraska College of Medicine, Omaha.

Feb. 17-19 **Closed Chest Cardiac Resuscitation,** University of Nebraska College of Medicine, Omaha.

Feb. 17-20 **Postgraduate Course in Surgery of the Hand sponsored by University of Colorado School of Medicine,** Denver.

Feb. 18-22 **American College of Radiology,** Regency Hyatt House, Atlanta.

Feb. 19-22 **Advances in Infectious Disease and Immunology sponsored by American College of Physicians,** Baylor University College of Medicine, Houston.

Feb. 20-22 **Central Surgical Association,** Drake Hotel, Chicago.

Feb. 21 **Kansas Regional Meeting sponsored by American College of Physicians,** University of Kansas Medical Center, Kansas City, Kansas.

Feb. 21-22 **Postgraduate Course in Gastroenterology sponsored by Good Samaritan Hospital and Veterans Administration Hospital in Phoenix,** Del Webb Towne House, Phoenix.

Feb. 24-25 **Postgraduate Course on Aging and Arteriosclerosis,** University of Nebraska College of Medicine, Omaha.

Feb. 24-26 **1969 Atlanta Graduate Medical Assembly sponsored by Fulton County Medical Society,** Regency Hyatt House, Atlanta.

Feb. 24-26 **Sectional Meeting, American College of Surgeons,** Brown Hotel, Louisville, Kentucky.

Feb. 26-Mar. 2 **American College of Cardiology,** New York Hilton, New York.

Feb. 26-28 **Advanced Seminar for Physicians and Other Professional Workers in Family Planning Agencies,** New York University Medical Center, New York.

Mar. 2-5 **Chicago Medical Society,** Palmer House, Chicago.

Mar. 3-6 **Physiological Concepts of Clinical Disease sponsored by American College of Physicians,** University of Texas Southwestern Medical School, Dallas.

Mar. 3-7 **Symposium on Arthritis and Related Disorders,** New York University Medical Center, New York.

Mar. 3-7 **The Doctor: His Patient and the Illness, sponsored by the American College of Physicians,** University of Cincinnati College of Medicine, Cincinnati.

Mar. 5-6 **Advances in Hematology,** University of Nebraska Medical Center, Omaha.

Mar. 9-11 **American Association of Pathologists and Bacteriologists,** San Francisco Hilton, San Francisco.

Mar. 10-12 **American College of Surgeons, Sectional Meeting,** Sheraton-Boston, Boston.

Mar. 10-12 **Postgraduate Course in Diagnostic Ultrasound,** University of Colorado School of Medicine, Denver.

Mar. 13-15 **Course in Current Problems in Electroencephalography: Advances Toward Their Solution, sponsored by American Electroencephalographic Society and Baylor University College of Medicine,** Texas Medical Center, Houston.

Mar. 13-15 **1969 National Medicolegal Symposium jointly sponsored by American Medical Association and American Bar Association,** Caesar's Palace, Las Vegas.

Mar. 13-15 **Practical Management of Poisoning,** University of Nebraska Medical Center, Omaha.

Mar. 14-15 **American Association of Obstetricians and Gynecologists.** Olympic Hotel, Seattle.

Mar. 15 **Nebraska Regional Meeting, sponsored by American College of Physicians,** Omaha.

Mar. 15-19 **American Academy of Allergy,** Americana, Bal Harbour, Florida.

Mar 17-21 **Recent Advances in Cardiovascular Disease sponsored by American College of Physicians,** Mount Sinai Medical Center, Blumenthal Auditorium, New York.

Mar. 20-21 **Postgraduate Course in Obstetrics and Gynecology,** University of Nebraska Medical Center, Omaha.

Mar. 20-22 **American Academy of Facial Plastic and Reconstructive Surgery,** The Royal Orleans, New Orleans.

Mar. 22-26 **American Society of Abdominal Surgeons,** Caesar's Palace, Las Vegas.

Mar. 23-24 **American Society for Head and Neck Surgery,** Roosevelt Hotel, New Orleans.

Mar. 24-28 **Modern Pathology for Internists sponsored by American College of Physicians,** University of Pittsburgh School of Medicine, Pittsburgh.

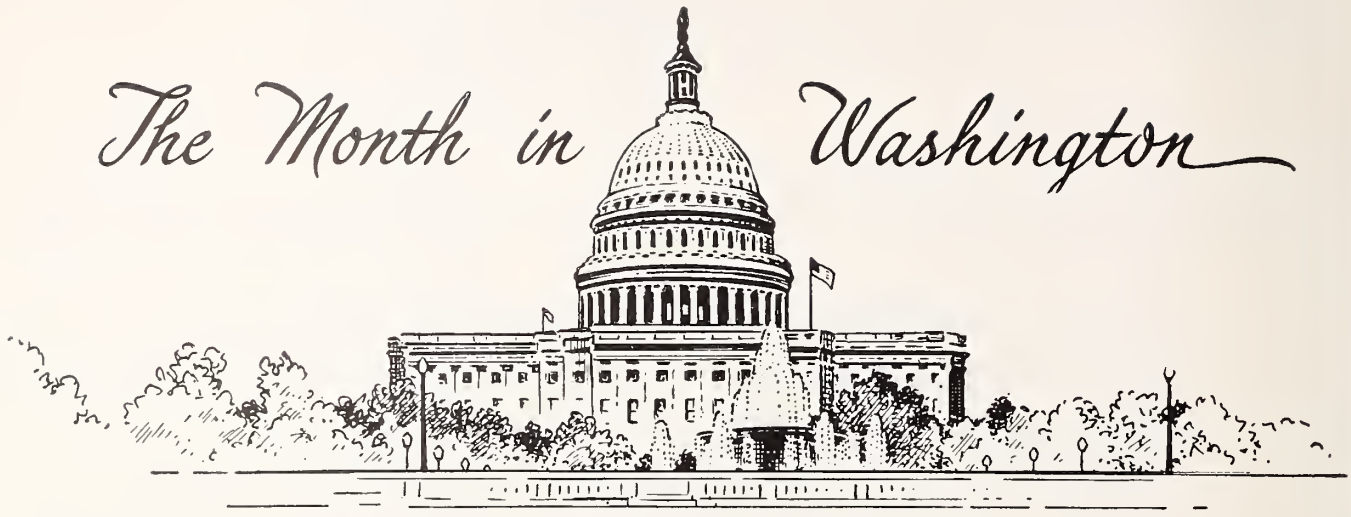
Mar. 26-27 **Fourth Annual Spring Conference on Prevention and Management of Sports Injuries,** University of Wisconsin Medical Center, Madison.

Mar. 26-28 **Three Days of Gastroenterology sponsored by American College of Physicians,** Emory University School of Medicine, Atlanta.

Mar. 27-28 **Postgraduate Course in Advanced Medical Microbiology for Medical Technologists,** University of Nebraska Medical Center, Omaha.

(Continued on page 128)

The Month in Washington



Washington, D. C.—On the first day of the new Congress, a House Ways and Means Committee member introduced a bill that would provide federal income tax credits to help individuals buy private health insurance. The legislation (HR 19), sponsored by Rep. Richard Fulton (D., Tenn.), was similar in principle to a health insurance financing plan utilizing tax credits which was approved by the American Medical Association House of Delegates at San Francisco last June and was reaffirmed at Miami Beach last December. Mr. Fulton said he considered his bill "at least an opener" for hearings. "Certainly before expanding any federal program, I believe it worthwhile to explore the use of the private sector and our tax system," he said.

The Fulton bill provides that individuals with incomes of $2,500 or less and families with incomes of $5,000 or less would receive $150 vouchers from the federal government per eligible individual for the purchase of health insurance. The family maximum would be $400.

In the case of a taxpayer with an income between $2,500.01 and $5,000, or a family with an income between $5,000.01 and $7,500, the credit would be 75 per cent per eligible individual with a maximum of $400 per family.

In the case of a taxpayer with an income of $5,000.01 to $7,500, or a family with an income between $7,500.01 and $10,000, the credit would be 50 per cent per eligible individual with a $400 family maximum.

In the case of a taxpayer with an income exceeding $7,500.01, or a family with an income exceeding $10,000.01, the credit would be 25 per cent.

At San Francisco, the House of Delegates adopted as approved AMA policy "the principle of graduated income tax credits for premiums paid for adequate health insurance." A resolution adopted at Miami Beach asked that the AMA "vigorously promote the enactment of federal legislation implementing" the plan.

A special commission on health facilities concluded that government and private enterprise must cooperate to organize the nation's health resources into effective, efficient and economic community systems of comprehensive health care for all persons.

The National Advisory Commission on Health Facilities, established in October, 1967, drafted its report to the President in general terms, and did not make any recommendations for legislation.

James Z. Appel, M.D., a former president of the American Medical Association and a commission member, said family physicians would be the ideal "points of entry" to community health systems, but that there are not enough of them.

A summary of the report included: "America's health-care systems should combine private and public responsibility. Facilities and systems will vary from community to community in accordance with local capacities and local needs, but guiding principles should govern the effort to develop effective and efficient health-care systems:

"1. These systems should be organized to assure appropriate points of entry into, and continuity of, health care services.

"2. Every citizen should have ready access to quality health care.

"3. States, regions, local communities, and all health institutions should carry out continuous planning.

"4. Both those who provide and those who consume health services should participate in the decisions.

"5. All levels of health care should be interdependent."

* * *

A Health, Education and Welfare Department report to Congress recommended that preventive health care services should not be added to Medicare benefits at this time. The report cited as reasons for the negative recommendation: administrative constraints, inability to estimate costs,

limited experience with automated multiphasic health screening, and an inadequate supply of health professionls. The report was one of three requested by Congress last year and submitted before the change in administrations.

A second report dealt with coverage of mentally ill under Medicare, but did not include any recommendations.

The third reviewed qualifications of personnel in the light of current Medicare regulations. It stated that because of an acute manpower shortage in the field, physical therapists should be considered qualified if they can show that they possess an adequate level of competency. HEW is developing a proficiency examination.

HEW recommended against allowing licensed practical nurses to serve as nurses responsible for the total nursing care at an extended-care facility. It also advised against changes in the regulations that set minimal standards for independent-laboratory personnel.

* * *

The premium rate for Medicare supplementary insurance covering physicians' fees (plan B) will remain at the present rate ($4 each for the individual beneficiary and the federal government) until July 1, 1970. The Johnson Administration's Secretary of Health, Education and Welfare, Wilbur J. Cohen, decided against an increase, although the Social Security Administration's chief actuary had declared that an anticipated rise in physicians' fees called for an increase of 40 cents each for the beneficiary and the government.

Mr. Cohen again asked physicians to show "unusual restraint" in setting fees. He urged that physicians and patients cooperate "in eliminating unnecessary utilization of physicians' services," and asked carriers and intermediaries to review claims carefully during the next 18 months.

* * *

The Food and Drug Administration proposed that six widely-prescribed antibiotic drugs combinations be taken off the market on grounds that they fail to live up to their claims of effectiveness.

The drugs and their manufacturers: Albamycin G. U.; Albamycin-T capsules and granules; and Panalba capsules, granules and drops—Upjohn Co.; Achromycin nasal suspension—Lederle Laboratories; Mysteclin-F capsules, syrup and pediatric drops and Mysteclin-F 125 capsules—E. R. Squibb & Sons Inc. The drug companies were given 30 days to respond before FDA's final action. The FDA order could be appealed to the courts.

Two of the drug companies promptly protested the FDA proposal in public comments. An Upjohn spokesman said his company's combinations are superior to the major constituents alone. A Squibb spokesman said Mysteclin-F had wide acceptance among physicians and a proper place in medical practice. A Lederle spokesman said Achromycin was not a major sales product, and declined to comment on what the company's official response would be.

New Treatment of Shock Shown in Upjohn Film

A revolutionary concept and technique—treatment of shock by vasodilatation—is depicted in a new film, "Lillehei on Stagnant Shock," the seventh in The Upjohn Company's award-winning Vanguard of Medicine Series. The film is available free to professional groups from Upjohn's Professional Film Library.

Contrary to earlier opinion, the film shows that severe shock almost always involves a marked reduction in peripheral circulation. The new term, "stagnant" shock, was chosen to describe the condition, which is shown to respond to various procedures and drugs intended to achieve vasodilatation.

In the first part of the 21-minute color film, Ted P. Bond, research assistant professor of physiology, and Dr. John R. Derrick, professor and chief of thoracic and cardiovascular surgery, University of Texas, show the effects of endotoxin shock on the cellular level in the mesentery microcirculation of dogs. Using *in vivo* cinemicrography, they illustrate the comparative results of treatment with plasma alone, plasma plus vasopressor, and plasma plus vasodilator.

Action then shifts to the University of Minnesota Hospital, where Drs. Richard Lillehei and Ronald Dietzman demonstrate the step-by-step management of a patient in stagnant endotoxin shock secondary to septic abortion. A mobile shock-monitoring unit records the effect of therapy.

Reporting a survival rate of more than 60 per cent, Drs. Lillehei and Dietzman say a comparable result can be obtained by doctors anywhere, with ordinary equipment.

The 16mm film is available without charge for showing to members of the medical and allied professions through the office of R. P. Trubey, manager of Special Projects for The Upjohn Company, Kalamazoo, Michigan.

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Potassium Phenoxymethyl Penicillin

Description: V-Cillin K, the potassium salt of V-Cillin® (phenoxymethyl penicillin, Lilly), combines acid stability with immediate solubility and rapid absorption. Higher, more rapid serum levels are obtained than with equal oral doses of penicillin G.

Indications: Streptococcus, pneumococcus, and gonococcus infections; infections caused by sensitive strains of staphylococci; prophylaxis of streptococcus infections in patients with a history of rheumatic fever; and prevention of bacterial endocarditis after tonsillectomy and tooth extraction in patients with a history of rheumatic fever or congenital heart disease.

Contraindication: Penicillin hypersensitivity.

Warnings: In rare instances, penicillin may cause acute anaphylaxis which may prove fatal unless promptly controlled. This type of reaction appears more frequently in patients with a history of sensitivity reactions to penicillin or with bronchial asthma or other allergies. Resuscitative drugs should be readily available. These include epinephrine and pressor drugs (as well as oxygen for inhalation) for immediate allergic manifestations and antihistamines and corticosteroids for delayed effects.

Precautions: Use cautiously, if at all, in a patient with a strongly positive history of allergy.

In prolonged therapy with penicillin, and particularly with high parenteral dosage schedules, frequent evaluation of the renal and hematopoietic systems is recommended.

In suspected staphylococcus infections, proper laboratory studies (including sensitivity tests) should be performed.

The use of penicillin may be associated with the overgrowth of penicillin-insensitive organisms. In such cases, discontinue administration and take appropriate measures.

Adverse Reactions: Although serious allergic reactions are much less common with oral penicillin than with intramuscular forms, manifestations of penicillin allergy may occur.

Penicillin is a substance of low toxicity, but it possesses a significant index of sensitization. The following hypersensitivity reactions have been reported: skin rashes ranging from maculopapular eruptions to exfoliative dermatitis; urticaria; and reactions resembling serum sickness, including chills, fever, edema, arthralgia, and prostration. Severe and often fatal anaphylaxis has occurred (see Warnings). Hemolytic anemia, leukopenia, thrombocytopenia, and nephropathy are rarely observed side-effects and are usually associated with high parenteral dosage.

Administration and Dosage: Usual dosage range, 125 mg. (200,000 units) three times a day to 500 mg. (800,000 units) every four hours. For infants, 50 mg. per Kg. per day divided into three doses.

See package literature for detailed dosage instructions for prophylaxis of streptococcus infections, surgery, gonorrhea, and severe infections.

How Supplied: Tablets V-Cillin K® (Potassium Phenoxymethyl Penicillin Tablets, U.S.P.), 125 mg. (200,000 units), 250 mg. (400,000 units), and 500 mg. (800,000 units).

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What's Ahead for the Drug Industry

C. JOSEPH STETLER, LL.B.
Washington, D. C.

IT MUST BE QUITE OBVIOUS to everyone why legislative problems constitute an ideal topic for discussion by a representative of the pharmaceutical industry. We live with them, both in Washington and in most of the states when the legislatures are in session.

Many of us in Washington certainly were delighted to see the adjournment of the Second Session of the 90th Congress. With it came the death of literally hundreds of bills of direct concern to medicine and the drug industry. And in my opinion death couldn't have happened to a more deserving batch of potential legislation.

With the election just completed it is far too early to try to gauge the complexion of the 91st Congress or the direction the new administration will take in programs affecting drugs and the drug industry. And although I shall attempt to look ahead, as my title has promised, I should like first to review some of the more important recent related events.

At the very least, the election should clear the atmosphere in Washington for a while, and that will be a welcome change in itself. Politics has been dominant during 1968, hovering over every hearing, influencing every important decision and spurring demands for various government actions designed primarily for instant appeal to voters, without regard to deeper considerations.

On both the legislative and regulatory fronts, it has been one of the most active and crucial years in our industry's history—not so much in terms of legislation enacted as in terms of the variety and radical nature of the legislative proposals and of the investigative hearings at both federal and state levels. Regulatory agencies across the whole spectrum of our various governments were also intensely active in seeking to impose their authority in ways which posed serious questions to the industry generally. We have engaged in a continuous battle to curb the passion of certain public officials to take over management of the drug industry's affairs.

THE LONG AND MONTOYA BILLS

What was unquestionably our most serious test resulted from efforts to establish government control over the prices of drugs purchased for beneficiaries of government-financed health programs. That attempt opened up a Pandora's box of other major issues—the questions of generic equivalency of drugs; of compulsory generic prescribing; of the quality of drugs vs. their prices; and, very fundamentally, whether the physician should be limited by the government to prescribing on the basis of price, with quality and the patient's individual needs relegated to secondary considerations.

For Social Security beneficiaries under legislation sponsored by Senator Russell Long, of Louisiana, chairman of the Senate Finance Committee, and others, physicians would have been *required* to prescribe, and pharmacists to dispense, from a national formulary emphasizing "lower priced" generics. Prices to be paid by the government would have been established through a cost-range guide published by the Secretary of Health, Education and Welfare. Thus price—not necessarily the suitability of a drug in the given situation—would have become the determining factor in a patient's treatment.

A similar bill containing objectionable price-control and generic-prescribing provisions was introduced by Senator Joseph Montoya, of New Mexico. It also called for extending Social Security benefits to include drugs for non-hospitalized elderly patients. In contrast to the

Mr. Stetler, president of the Pharmaceutical Manufacturers Association and formerly head of the AMA's Law Department, made this presentation at the Conference for IMS Legislative Contact Men, in Des Moines on November 7, 1968.

1967 session, when substantially the same proposals narrowly failed of enactment, neither of these bills reached the hearing stage in 1968. But I am not so sanguine as to suggest for a moment that we have heard the last of this type of measure, despite the outcome of the election. Quite the contrary, such bills are almost certain to be reintroduced.

The drug industry has said on many occasions that it fully recognizes the very proper interest of the government in controlling federal expenditures for drugs and other health benefits under Titles XVIII and XIX of the Social Security Act. We must be realistic about it. This problem isn't going to diminish in the years ahead. Far from it! Expansion of Medicare benefits is inevitable, and the present tide of events forces us to the assumption that Medicare itself will embrace increasingly larger segments of the population in the period that we are entering.

But as citizens we have an obligation to fight bad legislation. As fellow members of the health team we have an equal obligation to assist in a constructive search for ways in which the government's goal can be reached without demolishing the system on which our record of progress and achievement has been reached. It would be a national tragedy if attempts to solve the budget problem unwittingly promoted the general acceptance of the myth of generic equivalency and eroded the principle of manufacturer identification as a trusted measure of quality. It would be disastrous if the eventual effect of price-control action were the drying up of drug-company resources on which future drug discoveries depend. It would be a serious blow to the national health, and a humiliation for the medical profession, if physicians were required to surrender their opportunity to use their knowledge gained from training and experience, and their professional birthright, and to submit to federal authority under a price-list arrangement specifying the drugs which could be dispensed at government expense.

THE NELSON HEARINGS

In a time of extraordinary investigative, legislative and regulatory activity directed against the industry, the drug investigation which has been conducted since May, 1967, by Senator Gaylord Nelson, of Wisconsin, chairman of the Monopoly Subcommittee of the Senate Small Business Committee, has been the most deadly one. From its inception, the purposes of the inquiry have plainly been to arouse doubts in people's minds regarding the integrity of pharmaceutical manufacturers and their products, and to cast aspersions upon the prescribing habits of physicians. Its theme has been that all drugs which have the same generic name and which meet USP or NF standards are chemically and therapeutically equivalent, and therefore that equal effectiveness can be expected of them, regardless of their source. Organized medicine, the scientific community, the drug industry and—yes—the Food and Drug Administration all know that this is not true. But this false notion nevertheless is being planted in people's minds.

Palpably, the Nelson investigation was a desperate effort to create a climate of public acceptance and support for legislative proposals such as the Long and Montoya Bills. Obviously it was Senator Nelson's hope to convince members of Congress and the public that generic prescribing not only is medically safe and is a reasonable way for the government to hold down the cost of the health care it finances, but also is justified by the "high prices" and "unwarranted profits" of the drug industry.

During 17 months of intermittent hearings before the end of the 90th Congress—hearings involving about 125 witnesses—the PMA was allowed a grand total of three days in which to present the case for the drug industry. Thus it did not have much of an opportunity to answer the great volume of adverse testimony, and to give the public the chance that it certainly should have to make a valid decision regarding the issues which had been raised.

The witnesses who were allowed to appear during the rest of the long series of sessions were hand-picked to support the preconceived findings of the inquiry. The Subcommittee "didn't have time" to hear the AMA or the American Academy of General Practice. We know of dozens of distinguished scientists and medical men outside of the drug industry whose written requests to be heard were rejected. As a matter of fact, the one-sided impression which the public was given by these hearings, I am confident, was partially responsible for Senator Nelson's subsequent reelec-

tion. From the voters' point of view, it was an exposé of high prices, high profits, etc., and to an equal or greater degree it was an exposé of the physician's ineptitude in prescribing drugs.

Those were bad hearings, and I am afraid we are going to have more of them. Frankly, I should like to see more insistence on the part of the AMA and doctors generally in demanding a chance to be heard!

INTERIM REPORT OF THE HEW TASK FORCE ON EXTENDING MEDICARE

These remarks would be incomplete without reference to another development on the national scene which may be the source of legislative or regulatory problems in the future. More than a year ago the President directed the Department of HEW to study the question of extending Medicare benefits to patients outside hospitals, and to report back to him with recommendations. A Task Force was created by the Department for this purpose, and we have worked closely with it, attempting to supply facts about the industry and technical advice which might be helpful. The group issued its Second Interim Report on September 11, and to say the least, it was a disappointment.

Part of the difficulty lies in the fact that the inquiry has mushroomed into an elaborate statistical, legal, medical, administrative, economic and scientific study. About its main assignment, the extension of Medicare benefits, the Task Force's Report had next to nothing to say. Instead, it ranged far afield into such questions as drug prices, profits, patents, research costs, so-called molecular modification and others. It even shouldered itself into a long-standing medical argument by stating the opinion, with no scientifically based validation, that doctors are prescribing too many combinations. The Report did not endorse the theory of generic equivalency, but did say, "The lack of clinical equivalency among chemical equivalents has been grossly exaggerated as a major hazard to public health," thus revealing, at the very least, that the authors were misinformed.

Noticeable throughout the Report was a lack of in-depth understanding of the industry's basic operations. Also, the findings leaned heavily on unsupported opinions and secondary sources of information such as the statements of the carefully selected witnesses at the Nelson hearings. Thus, testimony adduced at a loaded Congressional investigation becomes a weapon to be used against the industry in other ways as well.

Nevertheless, the Report bears the *imprimatur* of an important agency of the federal government, and its influence on future developments affecting the industry and the medical profession can be profound. Because the inquiry is so important to us all, we intend to continue our cooperation with the Task Force by providing our comments on its recommendations and our assistance in the conduct of the further studies which are contemplated.

Another legislative matter of concern to physicians as well as to the drug industry was a bill in the last session which would have required pharmaceutical manufacturers to finance a government generic-drug compendium, for doctors and pharmacists, to be published by the Department of HEW.

Despite many conferences on this question with the FDA and various scientific groups, we remained convinced that no one really knew what the physicians—the actual users—needed and wanted. To provide that very significant information, the PMA employed the Opinion Research Corporation to make an independent national survey of the views of the medical profession, and when the results were published a few months ago, they showed conclusively that physicians believed that the improvement of existing compendia would be the most acceptable method of providing them with more complete drug information. The bill did not get out of committee and died with the Second Session of the 90th Congress. If it is reintroduced in the new Congress, the factual information produced by the PMA survey will be available for the guidance of the legislators.

THE TIGHTENING OF REGULATIONS

On the regulatory front there are several matters of direct interest to the medical profession. They are closely tied to legislative problems, since regulations for our heavily controlled industry have the force and effect of law.

The industry's extended controversy with the FDA over proposals for strict controls on labeling of vitamins and minerals has become a full-scale circus in so-called "administrative

hearings" that threaten to become a permanent Washington attraction. Years may elapse before this matter is resolved.

Perhaps the most serious bureaucratic threat to the drug industry at the moment is the FDA's bid to fasten new controls on prescription-drug advertising. Allowed to stand, the regulations which have been proposed would seriously interfere with the delivery of product information to physicians. We question not only the practical feasibility of those regulations and the philosophy they reflect, but also their foundation in law. We strongly believe their enforcement would do irreparable harm to the drug industry's promotion and distribution system, which is the foundation of its strength and which provides the resources on which its progress depends.

PROBLEMS AT THE STATE LEVEL

In the foregoing I have touched on the drug industry's foremost legislative and regulatory concerns with the federal government. Since time does not permit a detailed discussion of the industry's many other current involvements in Washington, I should like to move to the state legislative area, where we find a pattern of official conduct decidedly similar to that at the federal level.

To a considerable extent, no doubt, the steady growth of the body of state law affecting the drug industry in recent years has been stimulated by the activity of the federal government in this field. State capitals across the land could hardly be expected to overlook the juicy possibilities for capturing public attention which have been demonstrated by their federal counterpart—and, quite incidentally, of course, adding to their authority under the guise of "protecting the public."

It is true that the states have broad public-health powers. But the unfortunate fact is that attempts to exercise those powers have too often produced legislative proposals that are of questionable value, questionable constitutional validity and questionable public usefulness.

Here I might interject an ominous thought: During the calendar year 1968, the legislatures of only 27 states were in session, and yet in that so-called "off year" an extremely heavy volume of health legislation was dealt with. In 1969 the legislatures of 47 states will meet, and the industry has steeled itself for a new wave of legislation which in sheer volume cannot fail to exceed those of past years.

To give you an idea of the extent and far-reaching character of pharmaceutical legislation with which the industry was confronted in state legislatures I shall quickly name the subjects of the major proposals. And I mean the *major* proposals. A complete list would be virtually endless.

1. Compulsory generic prescribing and dispensing in welfare cases
2. Restrictions on clinical investigations
3. Control of differential pricing practices
4. Extension of narcotic laws not in conformity with federal laws
5. Extension of drug-abuse control laws not in conformity with federal laws
6. Licensing of out-of-state manufacturers
7. Licensing of detailmen
8. Bans on prescription-drug advertising
9. Recodification of food and drug laws.

Not surprisingly, many bills were introduced to control the sale, use or possession of hallucinogenic substances. This subject is a matter of continuing concern to state and federal legislators. Their actions usually involve amendments to the narcotic or dangerous drug laws. Many bills were also introduced to tighten control of depressants and stimulants. New laws in this area have been passed in Arkansas, Connecticut, Georgia, Idaho, Minnesota, Nevada, Utah, Washington and Wyoming.

Before I conclude I want to tell you about a highly significant and, in our opinion, wholly unjustified and unwise piece of drug legislation that was enacted by the California Legislature this year. I mention it in case it ever crops up before the Iowa Legislature, and it very well could, now that it has become law in the nation's most populous state. This measure relates to the California Medical Assistance Program (MediCal). Under its provisions a prescription drug may not be included in the MediCal formulary if the manufacturer charges differing prices to the various providers of prescription services—i.e., different prices to hospitals on the one hand, and to community pharmacies on the other. The obvious importance of including a drug in the MediCal formulary arises from the fact that the formulary determines the drugs for which welfare patients can seek reimbursement from the state. The law

also bars from the formulary any drug found to be "overpriced" in comparison to another drug determined to have equivalent therapeutic effect, unless there is a determination by appropriate state officials that the drug is vital to the program and that no acceptable substitute is available.

It is our belief that the California Legislature acted on two false assumptions: (1) It assumed that all hospitals are in competition with neighborhood pharmacies, and that simply is not true. (2) Its action reflected a hope that the measure would save the state money in drug purchases, a hope for which there are no reliable supporting data. On the contrary, we have sound estimates showing that if the state were to undertake the kind of program necessary to test, inspect and evaluate drugs in order to determine their equivalency, as required by this law, the cost would be upwards of $30 million—a sum far in excess of the amount which the proponents claimed the law would save.

This, remember, is only the beginning. Many problems will arise under this law, as administrators and those subject to its provisions attempt to interpret its terms. It not only is bad legislation in what it seeks to accomplish; it also is disruptive of good medical practice and of good pharmacy-industry relations. I sincerely hope you will remain alert to see that similar legislation is not seriously entertained by Iowa legislators.

CONCLUSION

In reviewing the multitude of legislative and regulatory challenges faced by the drug industry, it has not been my purpose to overwhelm you or lead you to the conclusion that our situation is even close to being desperate. It certainly is not. On the contrary, I am optimistic about the future of this industry. I am confident that the industry has the will and the wisdom to overcome the obstacles that we have been considering today, and to continue making a most significant contribution to the work of the health team which has established such a fantastic record of achievement in this country in the past 20 years.

At the same time, however, I want to say this to you very seriously: It is difficult to see how anyone can rationally conclude that the drug industry should bear the sole responsibility for opposing these various actions, and others which are constantly being proposed. They would unquestionably harm the unrivaled system of which medicine, pharmacy and the academic community are inseparable parts, along with the pharmaceutical manufacturing industry. Certainly it follows that whatever inflicts serious injury on one component damages the others as well.

Together, we comprise one entity for action and service in our modern society. Individually, we become ineffective. Over a great many years we have shared in a tremendous overall effort, and we have shared in the resulting achievements. Now we should share in the protection of our common interests.

It is time to stop being defensive. It is time to work together aggressively and legally to make clear to the nation and to our fellow citizens that it is the products that the pharmaceutical industry has invented, that doctors have prescribed and that pharmacists have dispensed which have been responsible for the medical benefits and the blessings of health that have set this age apart from all others. To this end, I urge the medical profession and physicians individually to join in expressing their opinions on the medical issues that are being raised in the assaults on drugs and the drug industry. Working closely and effectively together, we cannot fail!

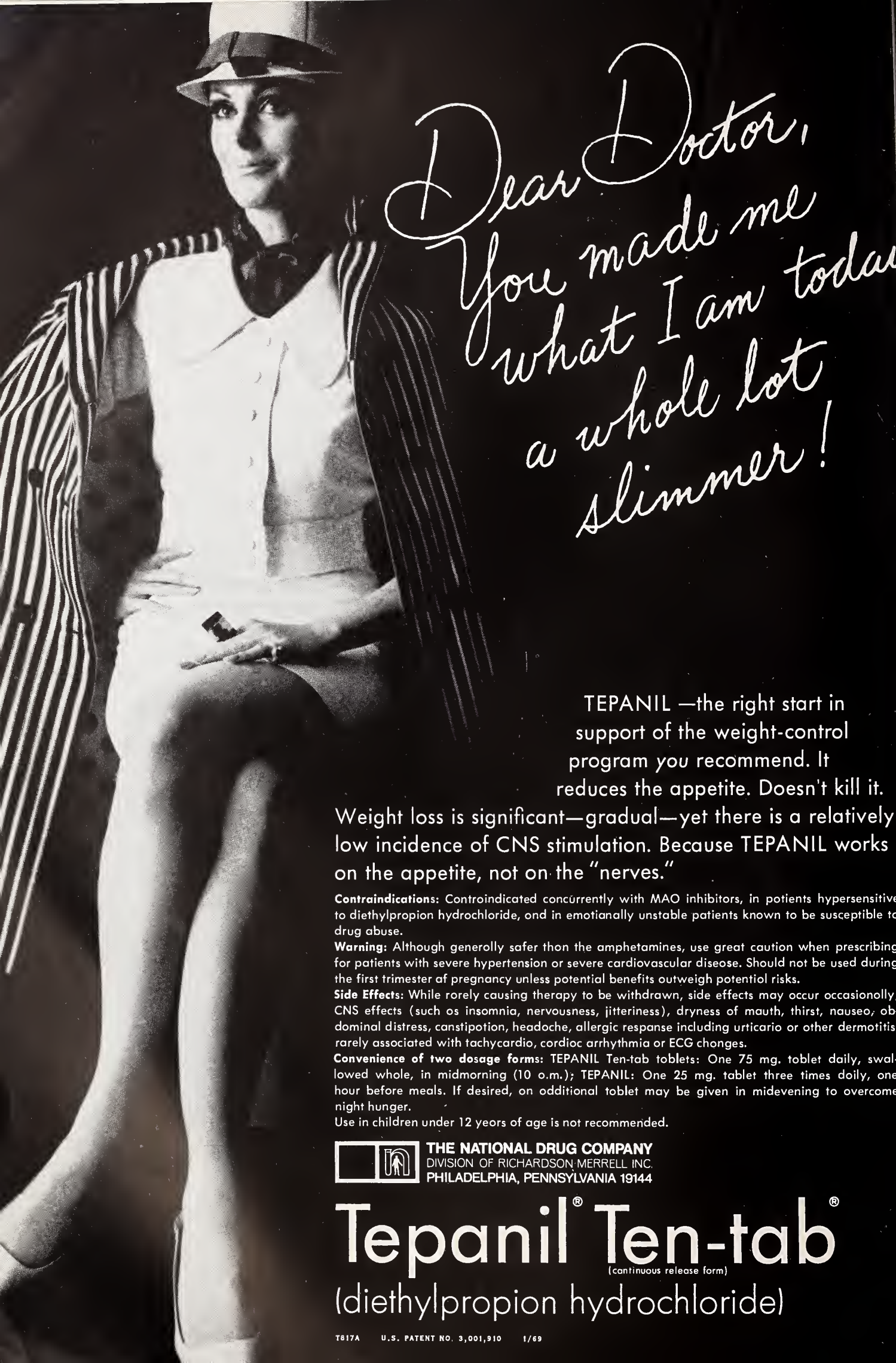
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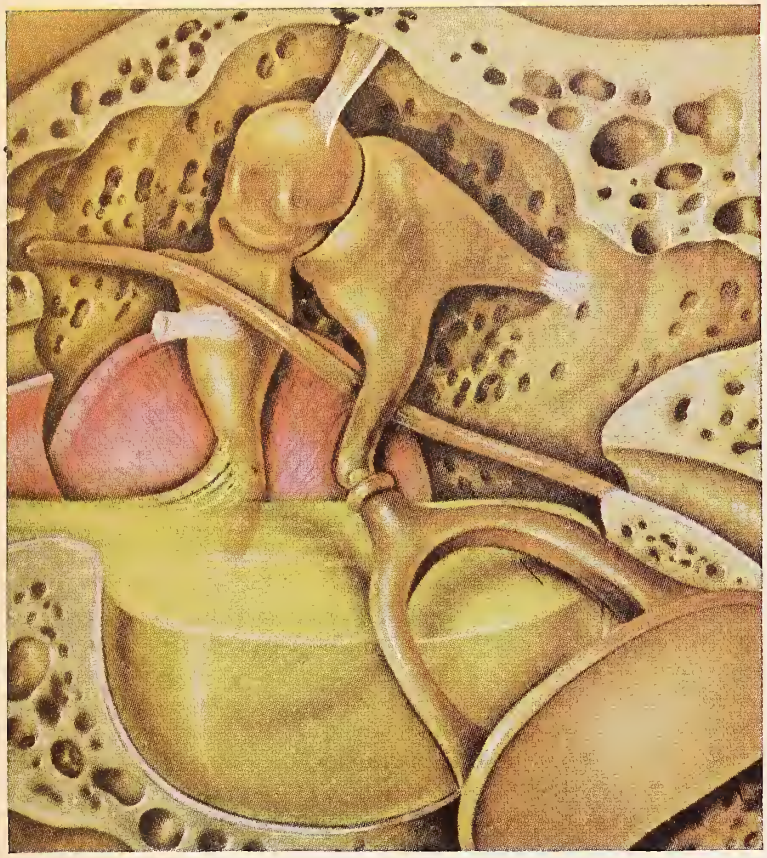
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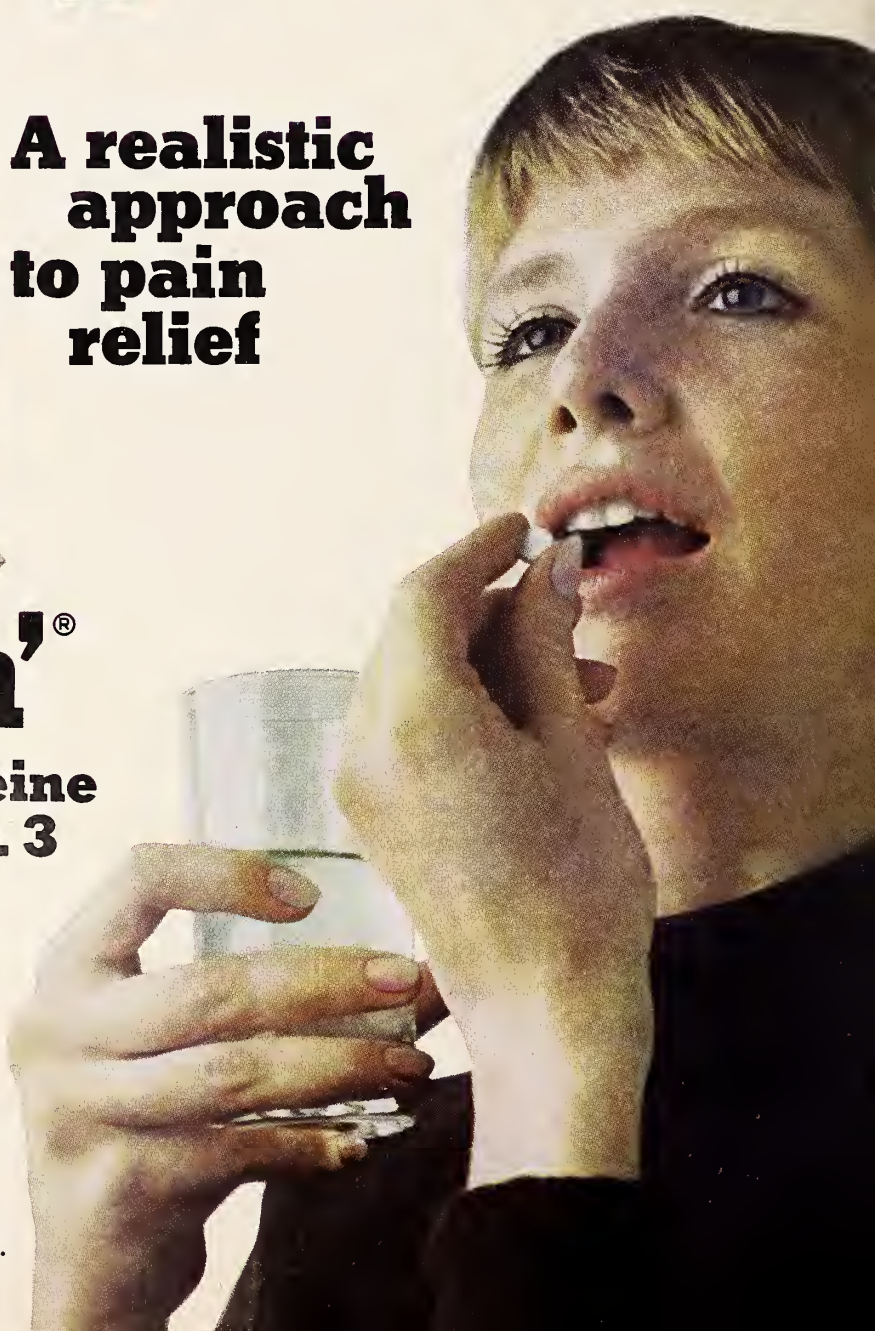


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Scientific Articles

Treatment of Acute Hepatic Coma With Exchange Transfusions: Report of a Case and Review of the Literature

MICHAEL A. BLOOME, M.D.,
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Acute massive necrosis of the liver, regardless of its etiology, is associated with a high mortality. In a recent review of 207 cases, Burnell *et al.* reported a mortality of 82.6 per cent.[1] Until recently, therapy for hepatic failure was limited to the use of precursors of urea formation, protein restriction, sterilization of the bowel, and administration of corticosteroids. The results have been disappointing. Although ammonia has been implicated as one of the "toxins" in liver failure, blood-ammonia levels have not correlated well with the patients' clinical status.[2, 3] Because of this lack of correlation, it seems likely that there are other "toxins," or that there may be a lack of substances essential to cellular metabolism. This is the rationale for maintaining liver-failure patients by means of plasmapheresis and exchange transfusions until their own liver cells can regenerate.[4–13]

The following case report illustrates the use of these methods in a patient with acute liver necrosis.

CASE REPORT

A 24-year-old white woman graduate student was admitted to University of Iowa Hospitals on February 17, 1968, with jaundice and malaise. Five days prior to admission she had developed weakness and ankle edema, and had been treated with thiazides at a local clinic. Two days prior to admission she had received Panalba (tetracycline and novobiocin) for an asymptomatic urinary-tract infection; and one day before admission she had experienced malaise, anorexia, light-colored stools, dark urine and icterus. Her past history was entirely negative.

The pertinent findings on admission were a normal mental status, generalized icterus, and a firm, nontender liver 2 cm. below the costal margin and 11 cm. in breadth by percussion in the mid-clavicular line. Initial laboratory examinations showed a hematocrit of 36 per cent, and a white blood cell count of 46,300/cu. mm., with 88 per cent neutrophils. Stools were clay-colored, and the urine analysis was normal ex-

Drs. Bloome and Bickers are interns, Drs. Bissett and Davidson are residents, and Dr. Schedl is a professor in the Department of Internal Medicine at the U. of I. College of Medicine. This study was supported in part by Research Grant AM02354 from the National Institute of Arthritis and Metabolic Diseases, National Institutes of Health.

cept for increased urobilinogen and marked bilirubinuria. Serum bilirubin was 4 mg. per cent direct and 9 mg. per cent total; serum glutamic oxaloacetic transaminase 120 units; alkaline phosphatase 1.9 sigma units (normal = 1.0-2.5); blood urea nitrogen 20 mg. per cent; and creatinine 1.0 mg. per cent. The electrocardiogram and chest film were normal. Several lupus erythematosus preparations were negative. A Coombs' test alone and a Coombs' test with novobiocin-coated red blood cells were negative. The patient's laboratory data and clinical course are charted in Figure 1. Her mental status was graded from 0 to 4 (Table 1) as suggested by Adams and Foley.[14]

Over the next few days the patient's mental status deteriorated rapidly. Her bilirubin continued to rise, and she developed a hemolytic anemia as evidenced by a sharp fall in the hematocrit and by a reticulocyte count of 13 per cent. Her liver was no longer palpable. She was given two units of blood, intravenous fluids, Solucortef and oral neomycin, but she continued to deteriorate. On day five she was transferred to the intensive-care unit, and an arterial cannula and a central venous pressure unit were inserted into her radial artery and brachial vein, respectively. After the patient had received one unit of fresh plasma, 500 cc. of blood was rapidly collected in an A-C-D bag. It was centrifuged for 20 minutes at 2,400 rpm, and then the plasma was discarded. Her red cells plus one unit of fresh plasma were then administered via her brachial vein. This procedure was repeated eight times during the next eight hours, but there was no change in her clinical condition. For ease of administration, an A-V shunt was inserted, and exchange transfusions of fresh whole blood were substituted for plasmapheresis. Over the next 22 days the patient received a total of 86 units of blood and eight units of plasma. On the average, an exchange of 12 units required three hours. The criteria established for each exchange were (1) a deteriorating mental status; (2) a prothrombin time greater than 30 seconds; (3) a total bilirubin greater than 30 mg. per cent; and (4) a rising blood ammonia.

On day 10, after 36 units of whole blood and 8 units of plasma had been administered, the patient was alert and cooperative, and had a normal mental status in her family's judgment. Her laboratory values, however, continued to fluctuate widely at grossly abnormal levels. Ascites, which had been absent initially, began to appear on day 11 despite an albumin of 3 Gm. per cent, and a normal urine output. She remained alert until day 23, when her blood pressure and her urine output (which had averaged 2 L./day) decreased, and her mental status deteriorated. Despite two more exchanges of 18 units, the patient died on March 15, 1968.

Autopsy revealed a grossly large, bile-stained liver weighing 1,650 Gm. Microscopic examination of the liver showed moderate, continu-

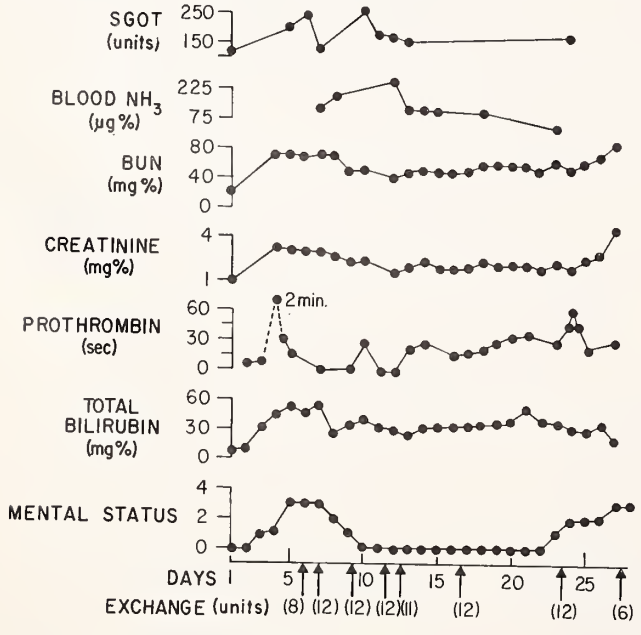


Figure 1. Serial laboratory data.

TABLE 1

CLINICAL GRADING OF HEPATIC COMA*

Grade	Mental State	EEG
0	Normal	Normal
I	Mild confusion and slowness of mentation. May be euphoric, with slurred speech	Usually normal
II	Lethargic. Inappropriate answers to questions	Abnormal
III	Somnolence is constant, but the person may be aroused and responds to stimuli. Speech is incoherent.	Abnormal
IV	May or may not respond to painful stimuli. Convulsions may be present, as well as rigidity	Abnormal

* Modified from Adams and Foley.[14]

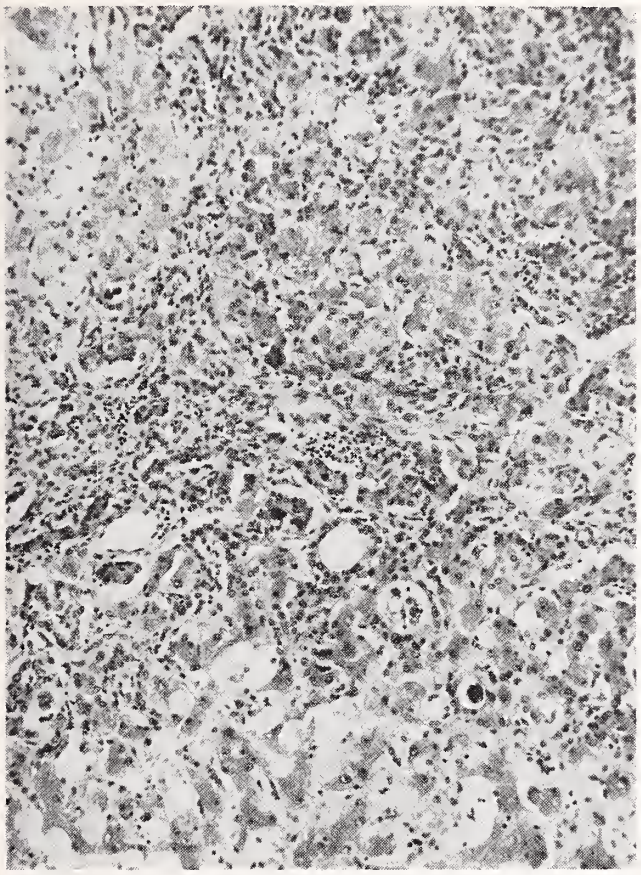


Figure 2. Microscopic section of the patient's liver (x 160). It illustrates the periportal fibrosis, bile duct proliferation, bile laking, and necrosis.

ous periportal fibrosis and prominent bile-duct proliferation, with minimal inflammatory infiltrate (Figure 2). The central part of the lobules contained variable amounts of necrosis, congestion and bile laking. Pulmonary edema and systemic aspergillosis were thought to have constituted the final cause of death.

COMMENTS

High mortality prevails in acute massive hepatic necrosis, despite conservative management or treatment with steroids. Altered protein metabolism with increased ammonia levels has been shown to damage brain cells in animals.[15] In human liver disease, however, there is little correlation between the clinical state and the blood-ammonia level. The consequent decline in popularity of the ammonia theory has led investigators to assume that unknown toxic substances—ones either produced by a damaged liver or not detoxified by it—lead to hepatic encephalopathy. On this assumption, Kiley[16] and Sherlock[17] carried out hemodialysis in hepatic coma, and lowered blood ammonia without producing clinical improvement. If these "toxic substances" are not dialyzable, alternative methods would be cross circulation with human volunteers,[1, 18] perfusion of the patient's blood into an animal liver,[18, 19] liver transplantation[20-23] or complete exchange of the patient's blood. The first three of these methods have met with varying success, and are associated with many technical and immunologic problems. At present exchange transfusions are the safest and simplest of the four procedures, and the remainder of this discussion will be limited to them.

To date, 43 patients with hepatic coma treated with exchange transfusions have been reported, and those cases are summarized in Table 2. In 1958, Lee and Tink reported the successful treatment of a case of fulminating viral hepatitis.[4] In 1966, Trey *et al.* reported a 50 per cent survival rate in 12 patients treated by exchange transfusion.[5] Other successes have been reported by Berger,[6] Gelfand,[7] Lederman[8] and McKechnie.[9] Unsuccessful attempts have been reported by Burnell,[1] Jones,[10] Krawitt[11] and Davis.[12] Sabin and Merritt treated three chronic cirrhotics in hepatic coma by plasmapheresis, and noted improvements in their mental status, although all three eventually died.[13]

The purpose of exchange transfusion is to provide temporary support for patients who, given time, can regenerate enough liver parenchyma to maintain themselves. Although the basis for the therapeutic efficacy of exchanges is not clear, it has been suggested that they may be effective in viral hepatitis in dogs by providing large amounts of antibodies.[24] Other animal studies, however, have tended to discredit this mechanism by demonstrating the successful treatment of drug-induced hepatic coma by exchange transfusion.[2, 5]

The average mortality of 67.4 per cent in the 43 patients treated with exchange transfusions was considerably better than the 82 per cent mortality experienced with conservative therapy as reviewed by Burnell.[1] In the second progress report of the Fulminant Hepatic Failure Surveillance Study now under way, Trey has reported a 10.4 per cent survival rate in 48 patients in deep coma treated with conservative therapy, as opposed to a 19.1 per cent survival rate in 96 patients who had undergone ex-

TABLE 2

Reference	No. of Cases	Etiology	Age (Years)	No. of Exchanges	Volume (Liters) Exchanged	Mental Status* Before Exchange	Time for Improvement After Exchange	Result
Lee and Tink[4] (1958)	1	Viral (?drug)	13	2	7.2	4	2	Survived
Trey et al.[5] (1966)	12	Viral	6	1	1.6	4	2	Survived
		Viral	7	1	1.8	4	3	Survived
		Viral	8	1	3.0	4	2	Survived
		Septic	1	1	1.8	4	2	Died
		?	1½	1	1.8	4	2	Survived
		Viral	34	7	42.0	4	3	Survived
		Viral ?	68	2	12.0	3	3	Died
		?	Child	?	?	4	No improvement	Died
		?	Child	?	?	4	No improvement	Died
		?	Adult	3	18.0	4	3	Survived
		?	Adult	3	18.0	4	3	Died
		?	Adult	3	18.0	4	3	Died
Berger et al.[6] (1961)	7	Viral	25	2	10.0	4	3	Survived
		Viral	24	2	18.0	4	No improvement	Died
		Viral	23	2	12.5	4	No improvement	Died
		Fatty infil. of preg.	39†	1	7.8	4	1	Survived
		Halothane	22	5	49.2	4	2	Died
		Halothane (viral?)	51†	5	60.0	4	No improvement	Died
		Halothane	41	4	48.0	4	1	Died
McKechnie et al.[9] (1967)	3	Viral	18	1	10.0	4	3	Survived
		Viral	37†	2	24.0	4	1	Died
		Halothane?	55	1	10.0	4	No improvement	
Burnell et al.[1] (1967)	2	Viral	11	14	35.0	4	5	Died
		Halothane	61	6	30.0	4	No improvement	Died
Gelfand et al.[7] (1967)	1	Viral	25†	3	6.0	4	3	Survived
Jones et al.[10] (1967)	7	Viral	5	5	5.0	4	?	All Died
		M.A.O. inhibitor	42	8	24.0	4		
		Viral	59	6	18.0	4		
		Halothane	68	6	20.0	3		
		Viral	23	2	6.0	4		
		Halothane	66	15	58.0	4		
		Viral	51	5	28.5	4		
Krebs and Flynn[30] (1967)	1	Viral	17†	1	25.0	4	3	Survived
Krawitt et al.[11] (1967)	1	Mercaptopurine and chronic hepatitis	18†	3	40.0	0	No improvement	Died
Lederman et al.[8] (1968)	2	PAS-INH	23	2	9.5	4	3	Survived
		PAS-INH	23	2	10.0	4	2	Survived
Sabin and Merritt[13] (1968)‡	3	Alcoholic cirrhosis	52	3	16.5	4	1	Died
		Alcoholic cirrhosis	49	3	9.0	4	1	Died
		Alcoholic cirrhosis	64	3	8.0	4	1	Died
Davis et al.[12] (1968)	3	Viral	25	3	?	4	?	Died
		Viral	30	2		4		Died
		Viral	39	3		4		Died

* Graded 1-4 according to Adams and Foley.[14] See Table 1.
† Dialysis, also.
‡ Plasmapheresis.

change transfusions.[26] In a recent article, Davis reported a 25 per cent survival rate with conservative therapy, but dealt with only 16 patients.[12] It would seem that Burnell's and Trey's more extensive studies showed closer approximations of the true mortality. However it is extremely difficult to make valid comparisons of different treatment studies because of the variability and unpredictability of the disease. Four of Trey's survivors had received only one exchange, and the laboratory values had subsequently improved.[5] One might wonder what the natural courses of their illnesses would have been without the exchanges. That study, however, also included three elderly cirrhotics who had little chance of hepatic regeneration and survival. Also, the mortality rate in a group consisting exclusively of patients with stage IV coma would probably be much higher than 82 per cent.

Although it is difficult to draw any conclusions, several observations were made regularly. First, the younger patients seemed to have the best prognoses. The average age of the survivors was 18.7 years, as compared to 40.0 years for those who died. Second, all but eight patients showed marked improvement in their mental status, regardless of the eventual outcomes of their illnesses. Third, this response occurred with surprising regularity within two or three days following the initial exchange, although some received more exchanges before this occurred. Also the prothrombin time, the bilirubin and the SGOT did not correlate well with the level of consciousness, but only seemed to be indications of certain biochemical capabilities of the liver at that time.

Although there were several technical differences in the reports, all were basically the same. In our patient we used plasmapheresis initially. Sabin has suggested that the advantages of this method are ability to store large quantities of plasma for long periods of time, decreased incidence of transfusion reactions, and returning the patient's own red cells to him. We rapidly abandoned this method, however because too much time was required for centrifuging the blood and running in the packed cells, and because evidence was lacking that returning the patients' own red cells was beneficial to him. We had to abandon the arterial catheter because of frequent clot formations during the first three days, despite heparin flushes. We substituted an A-V shunt identical to those used in hemodialysis. With this shunt we were able to withdraw blood from the arterial side and replace the blood via the vein. Although Spear has reported a linear increase in ammonia content in citrated blood stored over one or two weeks,[27] we had no difficulties using citrated blood less than 72 hours old and adding 2 cc. of calcium chloride per exchange.

With regard to the amount of blood which should be exchanged at one time, no clear agreement can be found. Trey used twice the calculated blood volume per exchange. Berger estimated that 5.5 L. would replace 80 per cent of the blood volume in an adult man.[6] Lederman reported no significant difference in bilirubin levels after 6 L., as compared with 4 L.[8] We chose to exchange one blood volume at a time, and to repeat that procedure as often as necessary. It also seemed reasonable to keep the exchanges one or two days apart, initially, since usually there is a lag of two days before mental improvement becomes apparent.

The major complications directly attributable to exchange transfusions are sepsis, hematoma formation at the catheter sites and thrombocytopenia. The possibilities of citrate intoxication and hypoglycemia have been noted be Lederman[8] and Jones.[10] Jones has pointed out that thrombocytopenia may be due to "dilution of platelets by exchanged blood, antiplatelet activity of heparin, or platelet antibodies." He has also suggested using platelet transfusions, but in our patient we encountered no severe problems resulting from platelet deficiencies. The criteria for exchanges outlined in the introduction are entirely arbitrary. Lacking any good laboratory test to guide us, we feel that the patient's mental status, as determined by several observers, is the most important guide. Present indications are that prophylactic exchanges at regular intervals, regardless of the patient's mental status, will not alter the course but will only increase the complications.

Our patient presented several unusual finding in terms of acute liver necrosis. There was never a very marked increase in SGOT, and the alkaline phosphatase was always within normal limits. This, along with a large liver,

certainly raised the question of chronic liver diseases with an acute insult—the result of either viral or allergic hepatitis. Although hemolytic anemia, which the patient exhibited initially, has been reported in hepatitis, it also suggests either a collagen disease or a drug reaction, neither of which could be demonstrated.

The patient had been exposed to four potential hepatotoxins. She had been taking Enovid for six months. Thiazides, tetracycline and novobiocin have been reported to cause liver damage.[28, 29] We can do little more than speculate as to the underlying cause of her liver disease at this time. Although pathologic findings are consistent with chronic liver disease, drug toxicity cannot be ruled out.

CONCLUSION

In conclusion, we have reported a case of fulminating hepatic necrosis which was unsuccessfully treated with exchange transfusions, and we have reviewed the literature. It is obvous that exchange transfusions are not the final answer to the problem of treating this disease, but until other means are established, we believe they constitute a simple and valuable procedure in certain carefully selected individuals who may have the requisite capacity for liver regeneration.

The results of 43 other cases of fulminating hepatic failure treated with exchange transfusions have been reviewed, and the results in those cases have been compared with the results of conservative therapy. It appears at present that exchange transfusions are a valuable procedure in certain select patients, and that they may increase the survival rate considerably.

ACKNOWLEDGEMENT

We are indebted to Drs. R. Rosenberg and R. Lawton for inserting the arterial shunt and the A-V cannula; to Drs. T. Kent and R. Gardner for the autopsy and the pathologic reports; and to the personnel of the U. of I. Blood Bank for technologic assistance during the exchanges.

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The Electrocardiogram in Pseudohypertrophic or Duchenne's Muscular Dystrophy (Type IIIa)

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Iowa City

A REPORT PUBLISHED in this JOURNAL about a year ago by Hanson and Zellweger summarized the clinical profile and natural history of the skeletal myopathies seen in pediatrics.[1] The electrocardiographic findings in Duchenne's progressive muscular dystrophy are characteristic enough so that this myopathy can often be distinguished from other myopathies of childhood on the basis of the electrocardiogram. This report presents the electrocardiographic findings in 52 male patients with progressive muscular dystrophy followed in the Pediatric Neurology Clinic at University Hospitals, Iowa City. One hundred ten electrocardiograms were available for interpretation. The diagnosis of progressive muscular dystrophy (Type IIIa)[2] has been established by history, physical examination, electromyogram, serum-enzyme studies, muscle biopsy and clinical progression.

RESULTS

Eighty per cent of the 52 patients' electrocardiograms were abnormal when compared with standard electrocardiographic criteria.[3] The most distinctive finding was a tall right precordial R-wave (Figure 1) with or without a deep left precordial q-wave (Figure 2). A q-wave in the frontal plane leads (e.g. Lead I, AVL) was a less consistent finding. Twenty per cent of the electrocardiographic tracings were normal (Figure 3). Rate and rhythm disturbances were relatively uncommon. Likewise, atrial or ventricular extrasystoles were uncommon. Minor S-T and T-wave changes were present in a few tracings, but were not consistent enough to warrant comment. By standard electrocardiographic criteria, the tall right precordial R-waves would be consistent with right ventricular hypertrophy or true posterior infarction. Deep left precordial q-waves would suggest loss of left ventricular forces or septal hypertrophy. In many instances a tall R-wave and deep q-waves, according to pediatric criteria, would be consistent with combined ventricular hypertrophy.

DISCUSSION

The reported incidence of cardiac involvement or dystrophic heart in Duchenne's muscular dystrophy varies from 32 to 85 per cent.[4] The etiology of the myocardial atrophy and fibrosis noted at postmortem examination is unknown. James has observed changes in the small coronary arteries and has postulated this as a possible cause.[5] This may well explain some of the arrhythmias observed, but confirmation of small coronary-artery changes as the source of myocardial damage is lacking.

The electrocardiographic findings in progressive muscular dystrophy have been the topic of previous communications.[6-8] These electrocardiographic changes have been attributed to thoracic-wall deformities, ventricular septal hypertrophy, pulmonary hypertension and myocardial ischemia. Physiologic studies have shown that these changes are not related to pulmonary hypertension,[6] and other studies have shown that they have no relationship to kyphoscoliosis.[6] Autopsies have not demonstrated septal hypertrophy. Few autopsy studies have been done to correlate the electrocardiographic findings with myocardial changes.

Dr. Durnin is a pediatric cardiologist and an assistant professor of pediatrics; Dr. Ziska is a resident in pediatrics; and Dr. Chandramouli is a fellow in pediatric cardiology at the U. of I. College of Medicine.

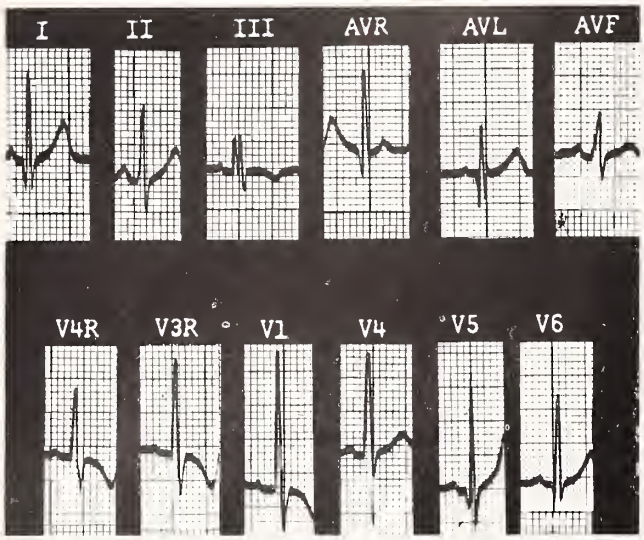


Figure 1. This electrocardiogram of a six-year-old ambulatory boy shows tall R-waves in leads V_4R-V_1 indicative of significant right ventricular hypertrophy. This youngster had a normal chest roentgenogram and a normal cardiac examination.

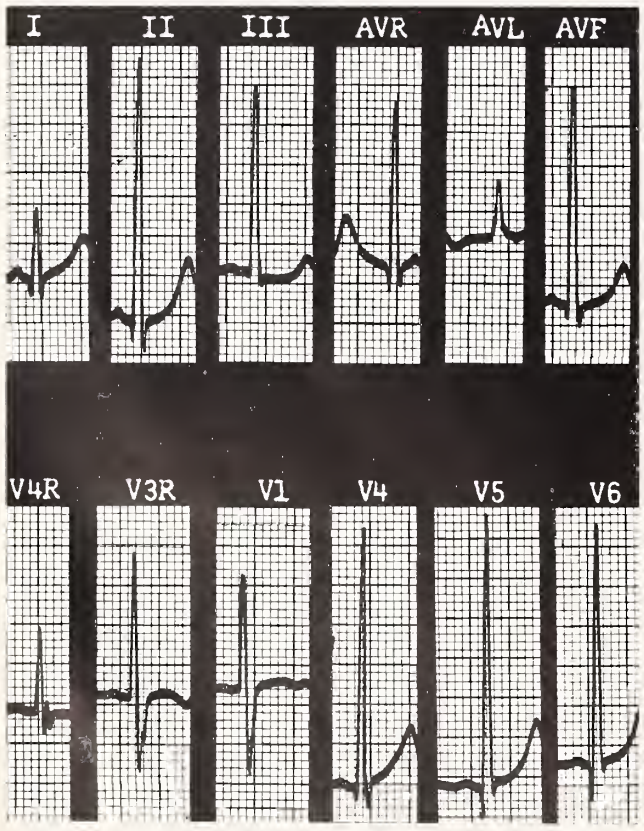


Figure 2. An electrocardiogram obtained on an eight-year-old ambulatory patient with a normal chest x-ray and cardiovascular examination. The EKG tracing shows a tall R-wave in V_4R-V_1 and deep q-waves in leads V_5-V_6. The electrocardiogram was interpreted as showing combined ventricular hypertrophy.

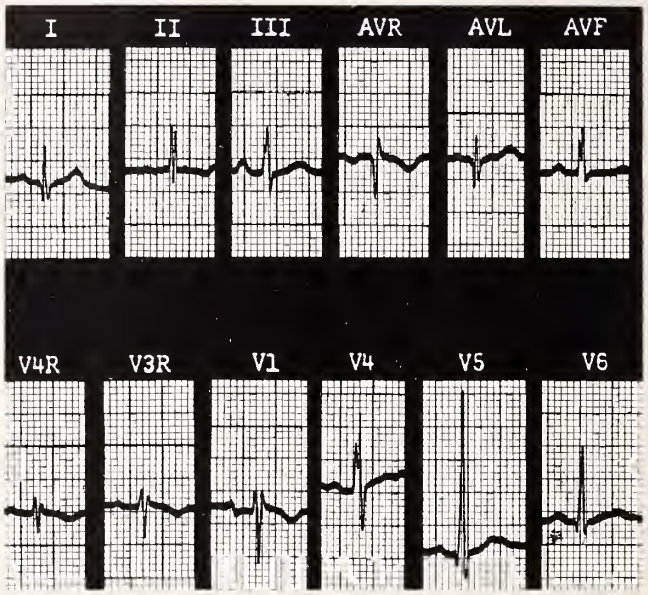


Figure 3. A normal electrocardiogram obtained from a 13-year-old patient who is confined to a wheelchair because of his skeletal limitations. His chest x-ray is normal except for kyphoscoliosis.

A recent report correlated the electrocardiographic findings in two patients with tall right precordial R-waves, and deep q-waves in the left precordial leads with fibrotic changes in the posterolateral area of the left ventricle.[8]

Gilroy stated that sinus tachycardia was a consistent finding in progressive muscular dystrophy.[4] Also, the electrocardiographic pattern could be correlated with the stage of the disease (e.g. ambulatory, wheelchair) and with the chronicity of the primary disease.

Our data indicate that the electrocardiographic abnormalities are common, being present in 80 per cent of our Duchenne's dystrophy population. There is no correlation, however, between the electrocardiogram and the duration of the muscle disorder. The electrocardiographic pattern does not indicate the course that the primary disease will pursue. There is no correlation between the electrocardiographic findings and thoracic-cage deformities in our serial electrocardiograms. Electrocardiographic changes were noted in the early stages of the disease when kyphoscoliosis was not present. We have no autopsy data with which to compare electrocardiographic findings and myocardial changes.

The electrocardiographic findings in progressive muscular dystrophy are quite specific, and death in this group of patients is usually sec-

ondary to cardiopulmonary failure.[4] Clinical assessment of cardiac function in light of the electrocardiographic findings becomes more difficult. When the activity pattern of the early-stage ambulatory and active dystrophy patient having a normal electrocardiogram was compared with the activity pattern of the child with typical electrocardiographic findings, no distinct difference was noted. Both were asymptomatic as regards the cardiovascular system, and both had normal chest x-ray and auscultatory examinations. Attempting to determine whether symptoms are of cardiac or pulmonary origin is likewise difficult in wheelchair or bedridden patients who show no evidence of cardiac enlargement or congestive heart failure. Pulmonary function is markedly impaired in the later stages of the disease, and can account for many observed symptoms.

It may well be that myocardial function is impaired in the group who have electrocardiographic abnormalities, but by present clinical assessment this is not evident. Exercise studies and evaluations of ventricular function may disclose impairment of myocardial function in the ambulatory group with electrocardiographic findings, as opposed to those with normal electrocardiograms. In the wheelchair group, ventricular-function testing may well delineate abnormalities which are less evident clinically because of the patients' marked limitations. Evident manifestations of dystrophic heart disease are probably lacking prior to the terminal stages of the primary disease because of the limitations imposed by the progressive muscular weakness. The cardiac picture is probably influenced by the limited life expectancy of these patients. We need further autopsy studies in order to correlate the pathologic data with electrocardiographic findings.

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Spigelian Hernia, a Cause of Abdominal Pain in Young Adults

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THE SEMILUNAR LINE was described by Adrian Vander Speil in the 16th century, and Klinkosch first described a hernia through the semilunar line in 1764. A report of three patients with hernias in this location was made by Astley Cooper in 1807, and since then many cases have been reported.[1-6] A comprehensive review was carried out by River, in 1942, revealing 116 reported cases up to that time.[7] Synonyms for spigelian hernia include hernia in the semilunaris, interstitial hernia of the semilunar line and spontaneous lateral ventral hernia.

Dr. Porter did the work that he describes in this article while he was an associate in surgery at the U. of I. College of Medicine.

ETIOLOGY

In 1944 Zimmerman, Anson *et al.* described the results of careful anatomical dissection of the internal oblique and transversus abdominis muscle.[8] From their findings came the most widely accepted etiology for spigelian hernia. The external oblique muscle was found to be anatomically quite consistent, its attachment to its tendinous insertion being uniform and gen-

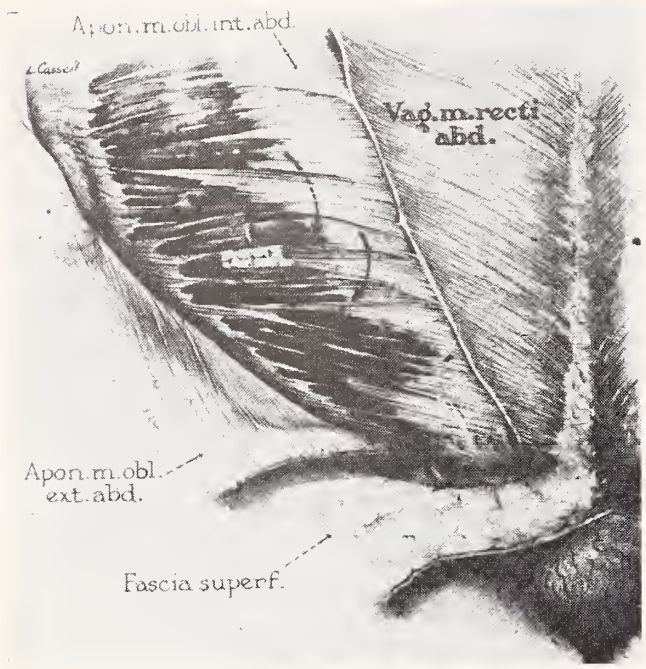


Figure 1. With the external oblique muscle reflected, banding of the internal oblique is demonstrated. Reproduced, with permission, from the article by Zimmerman, Anson et al.[8]

erally without defects. But the internal oblique muscle and the transversus abdominis were found to terminate anteriorly in fascial bands at inconsistent and irregular locations, producing defects in each layer between the fascial bands (Figures 1 and 2). In dissecting 100 body halves, they found that there were defects in one or both layers in 45 instances. There was a defect in the internal oblique muscle alone in 25; a defect in the transversus abdominis alone in 10; and defects in both layers in 10. Most pertinent, they found that there was a superimposed defect in the internal oblique and transversus abdominis muscles in six instances. The area of greatest frequency of the banding and defects was below the semicircular line, and that corresponds with the location of most spigelian hernias. Anatomically, the semicircular line is approximately one inch below the umbilicus in an adult. One could conclude that conditions which cause increased intra-abdominal pressure or weakening of the anterior abdominal



Figure 2. The internal oblique is reflected, and banding of both the internal oblique and transversus abdominis is depicted. Reproduced, with permission, from the article by Zimmerman, Anson et al.[8]

musculature could predispose to herniation between the fascial bands. Such conditions would include straining from exercise, constipation and coughing. Ascites or pregnancy would increase the intra-abdominal pressure, and general debilitation causing fatty replacement of muscle mass would also predispose a patient to this condition.

INCIDENCE

Spigelian hernia has been reported in patients ranging from six days to 94 years of age, and there have been equal male and female incidences. Predominantly, the literature describes the entity in elderly patients and in patients who have other hernias.

The following case histories illustrate this hernia in the young adult:

*Case 1.*A 19-year-old university football player was admitted in May, 1967, with abdominal pain of four days' duration which had begun in the mid-abdomen and had radiated to the right lower quadrant. He had constipation, nausea and a low-grade fever. His white count was elevated, and when he was operated on later that day, he was found to have a perforated retrocecal appendix. For the appendectomy, a McBurney incision was made in the classical manner, without extension. His postoperative course was uneventful, and his wound was closed secondarily. When he was next seen, in September, 1967, he had a three-day history of sharp pain near the medial aspect of his appendectomy scar, which had become progressively severe, and was much worse when he worked out with the football team. It then had become constant and quite severe for 48 hours prior to his admission. His bowels had been normal until the night before admission, when he had diarrhea. He had felt nauseated, but did not vomit.

Examination revealed slight guarding in the right lower quadrant around the healed appendectomy scar, and tenderness at the medial end. There was no rebound, the bowel sounds were normal, and no defects could be felt in the wound itself. The white blood cell count was 10,000/cu. mm. A repeat count later that day revealed it to be 6,200/cu. mm., with a normal differential count and a sedimentation rate of 8 mm./hr.

Initially, it was felt that the patient had a wound infection or a deep abdominal abscess, but neither could be substantiated. A chest x-ray, an abdominal film, an upper gastrointestinal series, a barium enema and an intravenous pyelogram were normal. He was essentially asymptomatic after three days in the hospital, and because nothing definite had been found, it was recommended that he return to activity.

Almost immediately after he resumed football practice he again had sharp pain in his right side, and he returned to the hospital that evening. The wound was aspirated and nothing was found. Xylocaine was instilled into the tender area, but no relief was obtained. Examining him on his hands and knees, we felt a very small spigelian hernia, and we thought that it could be the source of his difficulty.

On September 11 he was operated upon, and a right spigelian hernia was found (Figure 3). Transabdominal examination of the other side revealed no evidence of a hernia, and the spigelian hernia was repaired. His postoperative course was completely uncomplicated. He returned to football practice in three weeks, and was completely asymptomatic.

Case 2. A 17-year-old boy had had a constant, sharp, non-radiating pain in his right lower quadrant approximately three days prior to admission. He had become constipated, and the pain had changed very little. He vomited once, though he did not have any particular nausea. There were no chills. The pain did not radiate. There were no urinary symptoms.

Examination revealed a normal pulse and

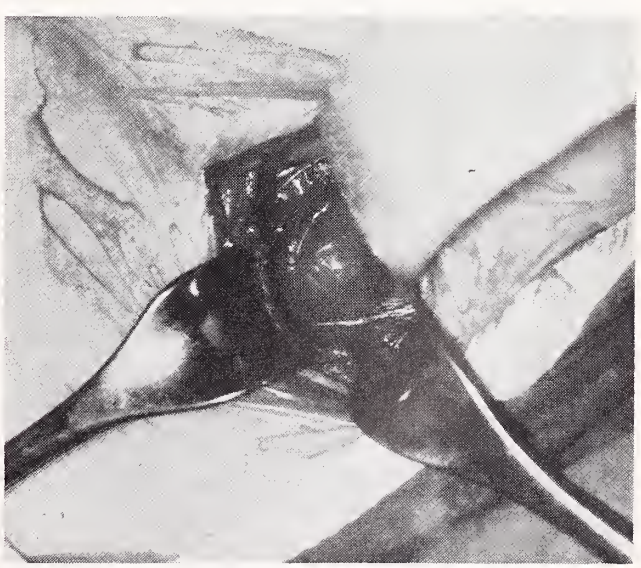


Figure 3. With external oblique fibers separated, a defect with protruding peritoneum between bands of transversus abdominis and internal oblique aponeurosis is visualized.

blood pressure, and a temperature of 99°F. The abdomen was soft, and there was no guarding. There was tenderness over McBurney's point on deep palpation, and no rebound tenderness. Bowel sounds were active. The white blood cell count was 6,000/cu. mm. Over the next 24 hours the pain continued, and the tenderness became considerably worse, still localized to the right lower quadrant. The patient became anorexic and seemed to have considerably more distress. A repeat white count was again 6,000/cu. mm. When we examined him while he was on his hands and knees, we could feel a small palpable defect in the area where one might suspect a spigelian hernia. It was very tender when we palpated it while he was in that position. It was also tender when he was in the supine position, but a defect could not then be felt. He was operated upon on January 26, 1968, and a spigelian hernia was found. None was present on the other side. His postoperative course was entirely uncomplicated, and he was pain-free. An incidental appendectomy was done.

Case 3. A 23-year-old lady, gravida II para II, was admitted on April 23, 1968, with a complaint of right-lower-quadrant pain since mid-February, when she had been hospitalized with what was thought to be a low-grade appendicitis. It had subsided. Subsequently she had had constant episodic, dull-to-sharp pain in her right lower abdomen, especially when riding in a car over bumpy roads. There had been very slight urinary frequency and nocturia once or twice. Her bowels had been regular, though she tended to have gaseousness after eating spicy foods. There was no history of abdominal injury. When the pain became sharp, it doubled her over, and was well localized on the right side. She had some nausea associated with the sharp pains.

Examination was unremarkable except for tenderness in her right lower quadrant when she was in the supine position. There was no rebound, and the bowel sounds were active. No masses were palpable. She had point tenderness at the lateral border of her rectus muscle. Her hemoglobin was 14.8 Gm., a white blood cell count on admission was 12,000/cu. mm., and her hematocrit was 44 per cent. Intravenous pyelograms were normal. A chest x-ray and a barium enema were normal. On April 25, 1968, exploration of the abdomen was carried out, and a spigelian hernia was found on the right side. The left side was examined, and no defect was present. An incidental appendectomy was done, and the appendix was histologically normal. Her postoperative course was good, and she was pain-free.

DISCUSSION

Spigelian hernia in the young adult can be very disabling. It is heralded by the onset of acute pain and some nausea, but in our patients by no vomiting. The pain, initially, is in the lower quadrant, and it remains in the same location. By that circumstance, hopefully, it can be differentiated from the pain of appendicitis. There may or may not be a palpable mass or defect. The white blood cell count is usually normal, and although the pain may be partially relieved by rest, the tenderness seems to remain. The differential diagnoses are numerous, for the condition can mimic pelvic disease or gallbladder disease, as well as gastrointestinal disease. I suspect that it is infrequently noted in young adults because it goes unrecognized. The patients whom it affects severely have acute onset of right lower quadrant pain and tenderness, and often they are subjected to appendectomy. The appendix removed from such a patient is normal, but in the closure of a classic McBurney incision the surgeon inadvertently repairs the hernia, which classically is located near the medial end of the incision.

If one is to recognize this entity preoperatively, he must think of it. Palpation of a mass or defect in the fascia will help him do so. The best position in which to put the patient for this examination is either standing and bending over at the waist, or on his hands and knees on the examining table. When he is in either of these positions, the abdominal musculature tends to relax and a defect can be felt.

TREATMENT

Surgical repair is the treatment of choice. After the surgeon incises the external oblique muscle he usually can see the protruding mass quite easily. He should open the peritoneum and then palpate the ipsilateral semilunar line and, if possible, the contralateral line. If there are other defects, they should be repaired. If the hernia is on the right side, an appendecto-

my is carried out. Repair consists of approximating the transversus abdominis fascia over the area of separation, and then similarly approximating the internal oblique fascia and suturing the external oblique muscle.

It has been my feeling that in young people who have had very small defects there is no tension on the repair, and thus the patients' postoperative activity need not be limited. I have not regretted giving such advice.

SUMMARY

Spigelian hernia as a cause of abdominal pain in young people has been reported in three patients. Its etiology, diagnosis and treatment have been discussed. I think this entity has been the cause of abdominal pain in many patients from whom normal appendices have been removed. In the closure of the McBurney incision the surgeon inadvertently repairs the hernia, and the patient is asymptomatic thereafter.

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Academy of Pediatrics Issues Guidelines for Iron Requirements

Providing iron-fortified dietary staples such as milk, cereal, bread, grits or rice to children after six weeks of age is the most effective way to prevent iron deficiency on a large scale in infancy, according to the American Academy of Pediatrics. In a statement appearing in the January, 1969, issue of PEDIATRICS, the AAP's Committee on Nutrition further recommends that the diet of normal-weight infants should provide 1.0 mg./kg. of body weight of iron each day by three months of age to a maximum intake of 15 mg./kg. each day, to provide sufficient iron to maintain normal hemoglobin values.

"This requirement can be easily met," the statement points out, "by inclusion in the diet of appropriate amounts of foods which have been enriched with iron, such as infant cereals or milk formulas."

The Academy statement further indicates that the presence of low birth weight or decreased hemoglobin level in the first few days of life may identify infants who will have special iron requirements during the first 18 months of life.

Discussing iron content for these low-birth-weight infants, and others with reduced iron endowment, the Academy Committee recommends that as much as 2.0 mg./kg. of iron per day be included in their diets beginning by two months of age. "This amount of iron will not ordinarily be provided by the diet, even if iron-supplemented cereals are given," the Academy emphasizes. "Attainment of these larger amounts requires the use of medicinal iron or iron-supplemented milk formula."

The Academy's Committee on Nutrition recommends that medicinal iron be continued for a month or so after normal hemoglobin levels have been attained, to insure replacement of normal iron reserves.

Examining the reasons for the variations in initial hemoglobin mass among infants which contribute to differences in body-iron content, the Academy's Committee says most evidence indicates that a mother's iron level has little effect on an infant's initial hemoglobin level. "Multiparity, low socioeconomic status, and racial factors are commonly linked with a high incidence of iron-deficiency anemia in the older infant," the statement points out. "The frequent association of these situations with low birth weight and with an inadequate postnatal intake of iron, are probably far more important than any maternal effects on the infant's iron endowment."

In examining iron deficiency *after* infancy, the AAP points to surveys made in widely separated areas in the United States which have indicated that severe nutritional anemia is *not* an important universal problem at four or six years of age, even in children from low socioeconomic backgrounds. The statement goes on to point out that it therefore seems likely that, "except for anemias secondary to blood loss, symptomatic problems of iron nutrition in childhood are largely restricted to the first two years of life."

Concluding, the statement makes this point: "Attention should be directed to providing a variety of iron-enriched dietary staples to be used routinely for feeding American infants during the period of life from 3 to 18 months of age, and to determining more precisely the best form of iron supplementation.

"At the present time, iron-fortified baby cereals and milk formulas are the iron-supplemented foods most generally available. However, these are not often utilized by segments of the American population which have the greatest need for them."

President's Page



Prominent social planners have predicted that by 1976 the entire population of the United States will be covered by "comprehensive health insurance (public and private) combined with availability of high quality medical services for all Americans."

If these prognostications are correct, then medicine's great challenge is to see to it that any comprehensive health plan is designed and implemented so as to preserve the high standards of private practice and the best quality of medical care.

C. W. Leibert, M.D.

President

—SPRING TONIC FOR IMS MEMBERS—

1969 ANNUAL MEETING IOWA MEDICAL SOCIETY

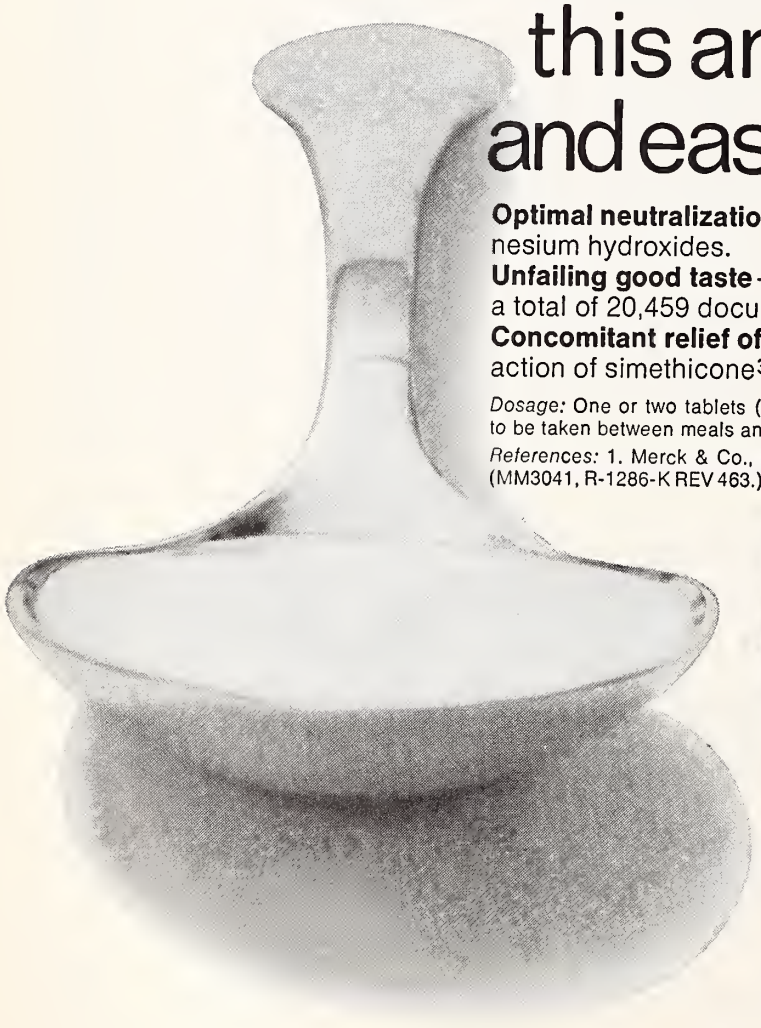
- *Monday, April 28: Imaginative Approaches to the Delivery of Medical Services to the Rural Community*
- *Tuesday, April 29: Adult-Adolescent Hang-Ups*
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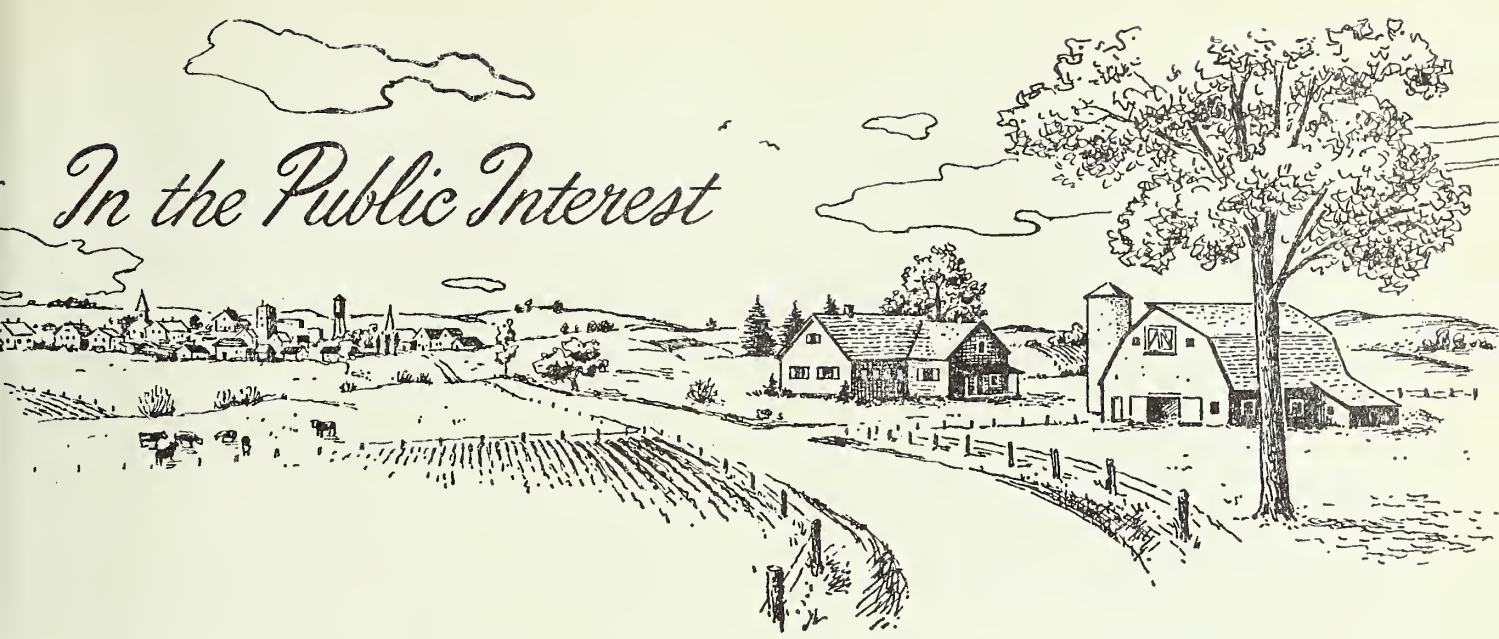
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The Chiropractors' Practice Act Should Remain as It Is!

At the 1969 General Assembly of Iowa a bill has been introduced which, it is said, is intended "to redefine the practice of chiropractic." The proponents of the measure have labelled the existing statutory definition "unclear" and are asking that it be "modernized."

In setting forth the position of the Iowa Medical Society regarding this bill, C. W. Seibert, M.D., of Waterloo, president of our organization, has emphasized the following points in a statement prepared for members of the General Assembly:

1. The Iowa Medical Society does not oppose chiropractors, as persons, but it does oppose chiropractic as an unscientific cult whose practitioners lack the necessary training and background to diagnose and treat human disease.

2. Because the Iowa Medical Society believes that chiropractic, even as now defined in the Iowa Code, constitutes a hazard to rational health care, the IMS, of necessity, is strongly opposed to legislation which might increase the chiropractors' scope of practice in even the slightest way, and thus increase that hazard to the people of Iowa.

3. The opposition of the Iowa Medical Society to chiropractic—and to legislation of the sort which has been proposed—derives from the commitment of doctors of medicine to promote the betterment of public health, and not from emotional or economic considerations.

4. *For many years the legislative policy of the Iowa Medical Society with regard to chiropractic has been "to live and let live."* We have vigorously opposed legislation sought by chiropractors which would have changed the *status quo,* but we have not sought legislation which would harass or further restrict the activities of chiropractors.

5. A body of impartial, authoritative information about chiropractic is now becoming available. It indicates that chiropractic is more of a health hazard than has heretofore been generally believed. *Thus it may be that the time has come, from the standpoint of the public interest, for the General Assembly to give attention to adding restrictions rather than to consider a proposal which would enlarge that scope of practice!*

6. This is not a dispute between "medicine" and "chiropractic." The real question is "What is best for the men, women and children of Iowa?" The burden of proof is clearly on the chiropractors.

REPLIES TO CHIROPRACTORS' ASSERTIONS

The chiropractors who are promoting the bill have produced a "Legislative Information Sheet" which contains five points. Those assertions are noted here, and each is followed by a comment from the Iowa Medical Society.

CHIROPRACTORS' ASSERTION: "The M.D., D.O., P.T., Podiatrist, D.V.M. have Legislative 'Definitions' which cover the latitude of their daily practices."

IMS COMMENT: That is an inaccurate and misleading statement. An examination of the following sections of the Code of Iowa will show that they all follow an identical pattern: "For the purpose of this title the following classes of persons shall be deemed to be engaged in the practice of": 148.1 Medicine and Surgery; 148A.2 Physical Therapists; 149.1 Podiatry; 150.2 Osteopathy; 150A Osteopathic Medicine and Surgery; 151.1 Chiropractic; 169.1 Veterinary Medicine. These Code sections, together with interpretations by the Iowa courts and the Attorney General, have constituted a clear and satisfactory definition of each of these areas of practice. Only in the cases of Physical Therapy (148A.1) and Osteopathy (150.1) are there further attempts to define the respective scopes of practice.

CHIROPRACTORS' ASSERTION: "The 1921 Chiropractic Practice Act is entitled 'Chiropractic Defined,' but does so in title only—not in fact."

IMS COMMENT: That statement is completely misleading. It has some superficial plausibility as a matter of form, but it completely lacks substance. Ever since the Iowa Supreme Court decided the case of State v. Boston, 226 Iowa 429 (1939), the Iowa definition of *chiropractic* has been crystal clear. In that case the Iowa Attorney General successfully enjoined the defendant chiropractor from exceeding his scope of practice and from unlawfully engaging in the practice of medicine. At page 431 of the opinion, the Court quoted Section 2555(2) of the Code in force at that time (151.1(2) of the Iowa Code 1966) and said as follows:

> In this statute is found the only source of defendant's authority to treat human ailments. Likewise therein is a legislative definition of what such treating of human ailments consists, i.e., adjustment by hand of the articulation of the spine and other incidental adjustments. When defendant professed to use modalities other than those defined in Section 2555, as curative means or methods, the conclusion seems unavoidable that he was attempting to function outside the restricted field of endeavor to which the legislature has limited the practice of chiropractic.

The headnote of that case summarizes the holding as follows:

> The statute limiting the practice of chiropractic and in specific terms prohibiting the use of surgery, osteopathy, or drugs must be construed as prohibiting chiropractors from using adjuncts to these practices, such as physiotherapy, electrotherapy, colonic irrigation, ultraviolet rays, traction tables, vitalizers, vibrators and the like, and also construed as prohibiting chiropractors from prescribing diet in the treatment of the sick.

For a definition of the practice of chiropractic in Iowa the Iowa Supreme Court also relied on the Boston case in Lowman v. Kuecker, 246 Iowa 1227, 1229 (1955), and in Correll v. Goodfellow, 255 Iowa 1237, 1241 (1964). Opinions of the Attorney General dated March 17, 1961, February 9, 1965, and September 25, 1968, did likewise.

CHIROPRACTORS' ASSERTION: "Confusion has resulted in and out of our profession in the past 47 years as a result."

IMS COMMENT: As has been noted, the Iowa definition of *chiropractic* is very clear and well understood. The only possible confusion in the definition is that which has been created by those chiropractors who would like to expand the scope of their practice.

CHIROPRACTORS' ASSERTION: "The proposed bill solves this problem for the citizens of Iowa and the chiropractic profession."

IMS COMMENT: The change of a single word or even of a punctuation mark in a practice act can have far-reaching consequences. It is not for us to say whether the proposed bill would solve the problem of "confusion" for the chiropractors, but it certainly would not do so for the citizens of Iowa. The proposed addition to the chiropractic practice act would produce doubts, uncertainties and ambiguities that could not be resolved for many years.

Following are several of the questions which have occurred to us after reviewing the bill: "Is chiropractic defined herein as a 'science,' or is it said to be an 'art'?" "Are people to understand that it is the *only* healing art 'which utilizes the inherent recuperative powers of the body'?" "Is 'analysis' the same as 'diagnosis'?"

"Analysis" is partially defined as including physical examination, and as including the employment of x-ray and "other analytical instruments generally used in the practice of chiropractic." "Who determines what 'analytical instruments' are now in general use by chiropractors?" "Is x-ray to be used for therapy as well as for 'analysis'?" "What other rights are covered by the ambiguous term 'analysis'?"

"Is 'procedure' the same as 'treatment'?" "What is meant by 'any interference with normal nerve transmission and expression'?" "What limitations, if any, does this impose on the practitioner?"

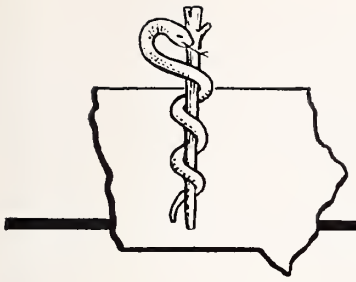
"What are the 'other incidental adjustments for the restoration and maintenance of health'?" "What limitations, if any, does this language impose on the practitioner?"

Our most important doubt concerns the need for asking the General Assembly to repeal Section 151.5, which expressly provides: "A license to practice chiropractic shall not authorize the licensee to practice operative surgery, osteopathy, nor administer or prescribe any drug or medicine included in materia medica," and to substitute in lieu thereof the obscure phrase "without the use of drugs or surgery." If no change in the meaning is intended, why not leave Section 151.5 as it is? It now is entirely clear.

CHIROPRACTORS' ASSERTION: "The definition arrived at and proposed has the support of the Iowa Chiropractic Society and its legal counsel, Allen Donielson, The Palmer Chiropractic College and its legal counsel, Lawrence Scalise. It is the definition which the International Chiropractors' Association recommends for national adoption."

IMS COMMENT: Our search has failed to reveal any state which has accepted the ambiguous definition "which the International Chiropractors' Association recommends for national adoption." The present clear and concise definition of chiropractic has provided much needed protection to the public, and yet has permitted chiropractors to pursue their calling without unreasonable impairment.

We trust and believe that the Sixty-Third General Assembly will not abandon a "sure thing" and embark upon an uncertain and untried course when so much is at stake for the health and welfare of the people of this state.



Editorials

AN INFRINGEMENT UPON FREEDOM

A clamor of protest was raised over the broadcast of a prayer by one of the astronauts as they were returning to earth from their incredible journey. The protest was raised by the same person who insists that reference to the Almighty has no place in the public school classroom.

Surely the prayer from outer space was but the echo from the hearts of millions of people throughout the world for the safety of the three intrepid men and the successful completion of their daring enterprise.

Under the circumstances the denial of words of faith and of gratitude could be likened to the silencing of a little baby's laugh, the whisper of a falling leaf, the patter of raindrops on the roof, the song of the robin at daylight or of the thrush at dusk.

Oh, ye of little faith!

CARDIAC AND OTHER ORGAN TRANSPLANTATION

Physicians are urged to read the "Special Communication" on the subject of Cardiac and Other Organ Transplantation in the December 9, 1968, issue of JAMA.* It is a report of the Fifth Bethesda Conference of the American College of Cardiology, which was held in September, 1968.

The Communication was addressed to the medical profession and to scientific investigators concerned with the problems of organ transplantation, to practicing physicians who desire information relating to current thought and practice in this field and to the future potential of transplant science. The report was also made for the benefit of legislators and government administrators concerned with problems of health, and to an informed public who are entitled to a report on new methods of treatment and on the problems involved.

This report first tells the present status of transplantation of organs other than the heart, the number of patients undergoing these procedures, and the outcome. Concerning renal transplantation the report states, "It has . . . emerged from a purely experimental stage into that of a generally accepted therapeutic procedure." Over 2,000 renal transplants have been done, and at least 1,100 patients who would have died without continuing dialysis are now living with kidney transplants. Among the patients receiving transplants from related living donors during the last four years, 60 per cent continue to survive, and some centers report that this figure has increased to 80 per cent in the past three years. Thirty per cent of patients who received cadaver kidneys more than four years ago still survive, and among those who have undergone transplantation within the last one to three years, 65 per cent are living. Surprisingly, the five-year survival rate for kidney transplants, even with present imperfections, is better than the five-year sur-

* Moore, F. D., Burch, G. E., Harken, D. E., Swan, H. J. C., Murray, J. E., and Lillihei, C. W.: Cardiac and other organ transplantation. JAMA, **206**:2489-2500, (Dec. 9) 1968.

vival rates of patients treated for most kinds of cancer.

The report states that success in human cardiac transplantation has been sufficiently impressive to encourage further trials. As of October, 1968, more than 50 cardiac transplantations had been performed, and there were more than 20 survivors. Problems of rejection, of infection and of postoperative management are receiving extensive study.

It is emphasized that all organ transplants of living vascularized tissue would fail from rejection, if some type of immunosuppression were not employed. The problem of rejection is much less important in transplants from consanguineous donors than from cadavers. It is especially important to improve cadaver-donor renal transplant survival because transplants of hearts and livers depend entirely upon cadaver sources.

The success in renal homotransplantation in man is attributed to the immunosuppressive agents azothioprine and corticosteroids. Despite the successes achieved with their help, they have many deleterious side-effects, and some patients reject the transplanted organ and others succumb from the side effects of the drugs. The use of antilymphocyte serum or globulin is an encouraging development which is permitting a reduction in the amount of immunosuppressive drug used. Tissue typing and matching appear to offer the best solution to the complex problem of selecting cadaveric donors, and a great deal of research is being done in this important field.

Considerable attention is given, in the Communication, to the logistics and economics of organ transplantation. It is recommended that a new commission or agency on health service and science be formed "to protect and maintain the national effort in biomedical sciences. This agency should maintain appropriate emphasis and priorities for all important fields, such as tissue transplantation."

A familiarity with this Communication will permit physicians to advise patients and their families intelligently concerning the present status of organ transplantation, and will bring them abreast of the progress that is being made in this exciting field.

SURGERY FOR EXTRACRANIAL CEREBRAL VASCULAR OCCLUSIVE DISEASE

A recent article on the Surgical Treatment of Extracranial Cerebral Vascular Occlusive Disease, by Cooley and Hallman, of the Department of Surgery at Baylor University Medical School, Houston, presents a review of a subject of increasing importance to practicing physicians.*

It is pointed out that strokes are a major complication of cerebral arteriosclerosis, and although accurate statistics are lacking concerning the incidence of cerebrovascular disease, the importance of the problem is demonstrated by the fact that 12 per cent of all deaths in the United States are attributable to these causes, putting them in third place behind diseases of the heart and cancer. It is estimated that there are between 500,000 and 2,000,000 living persons with significant disability from strokes in this country, constituting a serious medical and sociologic problem.

An estimated one-third of cerebrovascular accidents are the results of occlusive lesions in the cervical portions of the carotid and vertebral arteries in a location which permits surgical treatment and the restoration of normal cerebral circulation. Thus a heavy responsibility is placed upon practicing physicians who see patients with cerebral symptoms to recognize the early signs and symptoms, to proceed with further diagnostic measures and to recommend early operative treatment before a stenotic lesion progresses to complete occlusion and irreversible brain damage.

According to the Houston surgeons most of the surgically correctable extracranial lesions that produce transient ischemic attacks are located at a point where the common

* Cooley, D. A., and Hallman, G. L.: Treatment of extracranial cerebral vascular occlusive disease. CONNECTICUT MED., 32:820-824, (Nov.) 1968.

carotid artery bifurcates into internal and external branches, and at the origin of the vertebral artery from the subclavian artery. At these sites there are arteriosclerotic plaques which obstruct the flow of blood. Most of the lesions are localized to short segments two or three centimeters in length. However, some are more extensive. The degree of interference with the circulation is, in general, related to the diameter of the lumen and the length of the plaque. Ordinarily the vessel distal to the arteriosclerotic plaque is free from disease.

Occasionally the plaques rupture or ulcerate, discharging particles into the cerebral circulation and producing transient neurologic symptoms even though there may be only a mild degree of mechanical obstruction. Elongation and tortuosity of the internal carotid may result in kinking and intermittent obstruction of the circulation. Flexion of the neck may result in sudden vascular occlusion with an immediate onset of symptoms. The final event in the evolution of arteriosclerotic stenosis is complete occlusion, with possible cerebral infarction. Cerebral infarction may be delayed or may not occur if there is adequate collateral circulation distal to the completely occluded vessel.

According to the authors an operation performed within a few hours of complete carotid occlusion may be successful in restoring the patency of the vessel, but revascularization may result in death from cerebral edema or from hemorrhage into an infarct. Restoration of flow through a chronically occluded internal carotid artery is usually impossible because the obstructive process results in fibrosis and it extends cephalad to the first intracranial branch, the ophthalmic artery. Thus, operation is seldom advisable in carotid arteries that are totally occluded chronically.

As would be expected, the symptoms and findings in patients with cerebral vascular insufficiency vary, depending upon whether the carotid or the vertebrobasilar systems are involved. In the carotid syndrome the manifestations may be contralateral hemiparesis or hemiplegia, dysphasia or aphasia if the dominant hemisphere is involved, and ipsilateral, monocular blindness due to a reduction in the flow of the ophthalmic artery. The manifestations of the vertebrobasilar syndrome may include diplopia; facial weakness; and cerebellar signs which include vertigo, loss of equilibrium and ataxia, blindness, syncope, perhaps other disturbances of consciousness, and signs of involvement of both the motor and the sensory tracts.

The authors state that the symptoms and signs of the carotid syndrome usually fit into one of three clinical states: *first,* transient ischemic attacks, in which the symptoms appear suddenly, last for periods of a few minutes to several hours, and then clear completely; *second,* progressive stroke, in which the manifestations progress over a period of hours or days, and in which, though symptoms may appear to wax and wane, the overall picture is one of progressive deterioration; *third,* completed stroke, in which the onset of symptoms is usually sudden, with hemiplegia and aphasia due to decreased flow of blood to the dominant hemisphere.

Physical findings depend upon the artery involved and upon the stage of ischemia when the patient is seen. There may be no physical findings in the patient with transient ischemic attacks, but hemiplegia and aphasia may be apparent in the patient with a completed carotid stroke.

Emphasis is given to the importance of auscultation of the neck for the detection of vascular bruits as a sign of partial arterial obstruction. The diaphragm of the stethoscope should be placed over the bifurcation of the common carotid artery near the angle of the jaw, and over the subclavian artery just above the clavicle at the origin of the vertebral artery. The presence of a bruit is a helpful diagnostic finding, but the authors point out that significant obstructing or ulcerating lesions may be present in the absence of bruits.

It is the practice of the Houston group to obtain routine laboratory studies in this group of patients to rule out complicating metabolic disorders. X-rays of the chest and skull are indicated, and electroencephalograms are often helpful.

The authors emphasize that cerebral arteriography is the most important maneuver in the study of patients with cerebral symptoms, and that all patients with symptoms or signs sug-

gesting cerebrovascular insufficiency should have cerebral arteriograms. They prefer to perform arteriograms on patients under moderate sedation achieved with local anesthesia.

They point out that it is not mandatory to perform bilateral subclavian-vertebral arteriograms in all patients undergoing carotid arteriography because stenosis of a vertebral artery is a relatively uncommon cause of cerebrovascular insufficency. The subclavian-vertebral circulation is studied only in patients with certain indications—brain stem or cerebellar signs, supraclavicular bruits, and unequal pulses or blood pressures in the arms. Dizziness as a solitary symptom might be an indication for such a study, but in the majority of patients with dizziness and carotid stenosis, relief is obtained by carotid endarterectomy even if a vertebral lesion is present.

In their experience, they have found that the best results in the treatment of cerebrovascular insufficiency are obtained in patients with transient ischemic attacks due to localized stenotic lesions of the carotid and vertebral arteries. Obstructive plaques are removed by endarterectomy, and then the operative area is widened by the application of a Dacron patch. Operations are performed under general anesthesia.

The treatment of a completed stroke is primarily medical and supportive. Emergency operations are seldom successful, and may be fatal. Arteriograms may be done after the patient's condition has stabilized. If the patient has a hemiplegia and there is a complete carotid occlusion on the contralateral side, little can be gained by an operation.

The authors say that the management of progressive stroke must be individualized. Arteriograms should be performed soon unless the patient is improving. After the neurologic signs have stabilized and arteriograms demonstrate an extracranial obstructive lesion, operative treatment should be carried out.

Cooley and Hallman say that their experience with the surgical treatment of extracranial cerebrovascular disease includes 2,500 operations performed on 2,000 patients. Among patients with transient ischemic attacks, the mortality rate has been only 3 per cent, despite the patients' advanced age and the involvement of others of their organs by atherosclerosis. In 89 per cent of the patients operated upon, there was relief of symptoms or significant improvement.

In summation, the authors say, "Intermittent symptoms of unilateral weakness or numbness, speech difficulties or dizziness are frequently the result of cerebrovascular insufficiency. These ischemic episodes are often caused by stenosis or occlusion of major vessels in the neck. A vascular bruit is an important diagnostic sign. Cerebral arteriography is mandatory in all such patients. Surgical removal of the obstructing process should be carried out, and usually results in complete recovery of symptoms."

WE CANNOT SHOULDER ALL OF THE WORLD'S TROUBLES, BUT . . .

"A physician's role in our troubled times must be first an example of a life dedicated to others, and next an active participation in all possible political or public functions where his philosophy can have some salutary effect. The world needs physicians to heal disease, but it needs even more the optimism and hope of men of good will to heal its social insanity."

The above is a quotation from an editorial in the WESTCHESTER MEDICAL BULLETIN of November, 1968. Sadly, there are only 24 hours in a day, and how can already overworked physicians find time and energy to expend in the healing of social ills? To expect active participation from them in the political arena or in the resolving of sociologic problems is just not realistic. However, doctors of medicine, individually and collectively, are remiss if they do not express their interest and their concern, and if they do not actively support wise programs and oppose crack-pot solutions of problems besetting the nation.

A CORONARY-CARE UNIT FOR THE SMALL HOSPITAL

The advisability of establishing a coronary-care unit in a small hospital has been a controversial subject. There are both ardent supporters and vociferous opponents. A recent report of the results of a small coronary-care unit in a 20-bed hospital in a coastal town of 3,000 population suggests that it can make a significant contribution to the quality of medical care available to residents of such a community. This has been accomplished in a hospital staffed entirely by general practitioners.

A coronary-care unit has been in operation at the hospital in Reedsport, Oregon, for 22 months. The basic equipment consisted of a synchronized defibrillator and monitor, an EKG machine and a telephonic EKG transmitter. According to Dr. Robert L. Lewis, author of the report, one must also have "some initiative and nerve, plus time to train nurses, and one can easily start a coronary unit in a small hospital."* The Reedsport hospital received another monitor as a gift, and it is used in surgery or in the cardiac-care ward whenever there is need for monitoring more than one patient there.

During the 22-month period, approximately 1,200 patients were admitted to the adult medical service, and a total of 60 patients were monitored. Thirty-one of the 60 had acute myocardial infarctions. Seven of the 31 patients died, two of whom had had no treatment because of concurrent problems. In each of the five other cases that proved fatal, electroshock was used to treat either ventricular fibrillation or ventricular tachycardia.

In addition to the group treated in the unit because of myocardial infarction, five other patients were given electroshock therapy for the conversion of various tachy-arrhythmias. A transvenous pacemaker was inserted on one occasion for the correction of bradycardia.

According to the author, the unit is used for all patients with chest pain until a correct diagnosis is established. As could be expected under such a policy, the ultimate diagnosis in a considerable number of instances did not involve the heart. The examples quoted were anxiety neurosis, pneumonitis, radiculitis and gastritis.

The unit is also employed to monitor arrhythmias not attributable to myocardial infarction, such as digitalis toxicity, atrial fibrillation and paroxysmal tachycardia. On occasion, poorly defined terminal events and patients in syncope have been monitored.

The unit is operated at a surprisingly low cost to the patient. At the time of the report, it was $15 for the first day and $5 for each subsequent day. Thus, because of the low cost, the staff uses the unit freely when there is any doubt about the possibility of a cardiac problem.

Finding that serum electrolyte determinations were necessary in the management of critically ill patients, particularly following conversion of ventricular fibrillation, a blood-gas machine was purchased and is now being used on all patients in whom pH changes and electrolyte disturbances are likely to occur. According to Lewis this has raised the quality of medical care for these patients by providing accurate information instead of educated guesses: "In my opinion, this has probably done more than anything else to ease the burden of diagnosing and treating correctly many conditions that are either the cause or the effect of blood pH changes."

The author points out that several of the patients requiring electroshock treatment were treated within minutes of the onset of symptoms. Immediate treatment saves many lives, and referral of patients to a distant hospital after they have sustained myocardial infarctions places their lives in jeopardy. Though recognizing the reluctance of hosptials to set up coronary-care units, particularly when there are no qualified specialists to provide direct supervision, he urges that all hospitals equip themselves for the monitoring and treatment of such patients.

Doctors who have had no exposure to these new techniques are urged to start by monitoring their coronary patients. By so doing, they will

* Lewis, R. L.: Results of small hospital coronary-care unit. NORTHWEST MED., 67:986-987, Oct., 1968.

learn to recognize various arrhythmias and gradually start treating them. Sooner or later they will see a ventricular fibrillation or a ventricular tachycardia, and will not hesitate to attempt conversion by electroshock. Thus, what appeared to be an impossible task at first, gradually unfolds, more or less stepwise, into a very rewarding field of patient care.

With experience, the physician finds that it is not as mystifying as he originally thought. He will become more alert to prodromal symptoms and signs, and to the significance of the various arrhythmias, and he will develop diagnostic accuracy and therapeutic acumen. As a matter of fact, the author implies that the establishment of a coronary-care unit has improved medical care throughout the Reedsport hospital.

This example of a successful coronary-care unit in a 20-bed hospital should encourage hospital boards everywhere, and should prompt hospital staffs to consider seriously the wisdom of establishing such facilities in their hospitals. This obviously requires careful planning, initiative, hard work, courage and a willingness to face criticism and opposition.

Letters to the Editor

Sir:

I hope that the Iowa Medical Society will go on record in favor of repealing the state's abortion laws, and leave the question of terminating a pregnancy to the woman and her physician. The conditions of today are aptly explained by John D. Rockefeller III, that restricting abortions causes greater tragedies than the tragedy of abortion itself.

A presidenial advisory council on the status of women also has recommended that state laws penalizing abortion be repealed, and so has the American Public Health Association, in declaring that "any woman in a free society shall have the right to decide for herself if she wishes to have an abortion."

The huge loss of life due to self-induced miscarriage and the bungling efforts of the criminal abortionist were shockingly stated by Rev. Dr. Paul B. McCleave of Chicago, Ill., moderator of the panel discussion on the liberalization of our abortion laws at the 1968 annual meeting of the Iowa Medical Society. He said, "I once saw 19 women in an obstetrical ward at the Cook County Hospital bleeding to death, and an average of 4 such women go to the morgue." We are legislating morals and still are tainted with the religious bigotry of the middle ages.

It is estimated that 5,000 to 10,000 women die annually here in the U. S. at the hands of the criminal abortionist. We make these women lose their lives because we refuse to let them terminate a pregnancy under proper conditions.

What about the status of the fetus—the unborn child? Science has definitely shown that it does not have consciousness, and that the actions of an anencephalic monster with only a brain stem are like those of a normal fetus. As for those who are so concerned about saving the life of the fetus, rather than the life of the pregnant woman, why are they not equally concerned about the sperm and ovum? Those too have the potentials of life.

Another reason for repealing our abortion laws, is that the unwanted child is frequently a battered child, and a few such are actually murdered by their parents. The unwanted child—too often unloved—has some likelihood of becoming a criminal.

Even some principal figures among the Catholic clergy—St. Thomas Aquinas and Popes Innocent III and Gregory XVI—did not regard the fetus as being a person before the time of quickening, according to Bishop Pike.

Our population explosion would also be retarded if no women had to bring unwanted children into this world. This is important, for an excess of population will lead to wars of extermination.

Even the teachings of Thomas Jefferson would support the repeal of our abortion laws. He declared, "The conduct of government extends only to things injurious to others."

When a woman terminates a pregnancy we deal with a physical condition—not a spiritual one. Let the physician minister to the physical, and the clergy to the spiritual.

PETER VAN ZANTE, M.D.

Pella, Iowa
January 13, 1969

Coming Meetings

(Continued from page 97)

Mar. 28-29	**3rd National Congress on Socio-Economics of Health Care**, Palmer House, Chicago.
Mar. 28-29	**American Otological Society**, Roosevelt Hotel, New Orleans.
Mar. 31-Apr. 2	**American Association for Thoracic Surgery**, Fairmont Hotel, San Francisco.

ABROAD

Mar. 28-30	**International Medical Congress (6th)**, Verona, Italy.
April 8-10	**Institute of Cancer Research**, Cambridge, England.
April 13-16	**European Society for Experimental Surgery, 4th Congress**, Davos, Switzerland.

THE JOURNAL *Book Shelf*



BOOK REVIEWS

TREATMENT OF COMMON ALLERGIC PROBLEMS, ed. by *Roy Patterson*, M.D., and REHABILITATION, ed. by *David J. Feldman*. MODERN TREATMENT, Vol. 5, No. 5, September, 1968. (New York, Harper & Row, $16.00 per year.)

The September, 1968, issue of this excellent paperback series contains symposia on two important areas of modern therapy. They should be of practical importance to the practicing physician and should prove beneficial to his patients.

This volume condenses into a little over 100 pages the present concepts of therapy of allergic disorders, excepting those of the respiratory tract which were covered in a preceding issue. In somewhat over 150 pages, the modern principles and practices of rehabilitation designed to help the disabled attain maximum independence are briefly presented.

This series is commended to the physician because it presents present thought on the treatment of a variety of diseases with a paucity of words, and because it is written by experts in their particular fields. —*Dennis H. Kelly, Sr.*, M.D.

BRAY'S CLINICAL LABORATORY METHODS, SEVENTH EDITION, by *John D. Bauer, P. G. Ackermann,* and *G. Toro.* (St. Louis, C. V. Mosby Company, 1968).

In Chapter I, entitled "Laboratory Rules and Quality Control," of this latest edition of Brays' standard work in clinical pathology, the tradition of a no-nonsense approach to clinical pathology is admirably followed. The emphasis on quality control in blood banking, clinical chemistry, blood coagulation, hematology, and microbiology indicate immediately that the editors have kept up with the trends in modern clinical pathology.

Newer fields such as osmolality and urinalysis, urine electrophoresis and quanitative aminoacid identification by paper chromatography, thin-layer chromatography and thin-layer electrophoresis are described. There is also a section on urinary steroid hormones, with tests and methodology.

In the section on hematology, the technique for automated erythrocyte and leukocyte counting and calibration methods, and the technique for chromosome culture from human leukocytes, are discussed. The fluorescent antibody test for lupus erythematosus is also discussed.

A chapter entitled "Examination of Biologic Fluids" collects up-to-date techniques and normals for spinal fluid and synovial fluid, and also includes a more classical discussion of sputum, transudates and exudates.

The section entitled Parasitology has retained the excellent drawings and diagrams of the previous edition, and, besides, is brought up to date by the inclusion of a section of Pneumocystis Carinii.

The handy format, the soft cover and the size make the book a desk reference-type companion volume which should be readily available to anyone requiring the latest information in clinical pathology.

This is more than a "cook book"; it is an old friend to many pathologists.—*John W. Green, Jr.*, M.D.

BOOKS RECEIVED

DOES EVERYBODY NEED AN ANALYST? by *William Stone*, M.D. (New York, Pageant Press, Inc., 1968, $3.50).

REHABILITATION AND MEDICINE, edited by *Sidney Light*, M.D. (Baltimore, Waverly Press, Inc., 1968, $18.00).

ALCOHOL AND THE IMPAIRED DRIVER, prepared by Committee on Medicolegal Problems, American Medical Association, Chicago, $1.50.

ROENTGEN TECHNIQUES IN LABORATORY ANIMALS, edited by *Benjamin Felson*, M.D. (Philadelphia, W. B. Saunders Company, 1968, $17.50).

Alaska Is First to Enact Eye-Safety Law

A "first in the nation" law passed in Alaska, which provides that only safety glasses and sunglasses shall be prescribed in that state, has been lauded by the National Society for the Prevention of Blindness. The new law also prevents the sale and distribution of eyeglass frames made of highly combustible materials. It is to take effect in May of this year. The legislator who proposed the measure is a physician, Milo H. Fritz, M.D.

The National Society's executive director, John W. Ferree, M.D., has called the law "one of the most progressive steps ever taken to protect the eyesight of the millions who wear glasses," and pointed out that the law is "pioneer legislation—not only in the United States but in the world." He added that only in Massachusetts is similar legislation pending.

The Alaska law is tight and specific: "No person may fabricate, distribute, sell, exchange or deliver, or have in his possession with the intent to distribute, sell, exchange or deliver, eyeglasses or sunglasses unless they are fitted with plastic lenses or with glass lenses which are tempered or case hardened. Glass lenses shall have a minimum thickness of two millimeters.

"No person may fabricate, distribute, sell, exchange, deliver, or have in his possession with intent to distribute, sell, exchange or deliver, eyeglasses or sunglasses having frames manufactured from cellulose nitrate or other flammable materials."

University Hospitals DRUG LETTER

Effects of Systemic Drugs on Intraocular Pressure

J. A. BRYANT, M.D.

Glaucoma is characterized by increased intraocular pressure, excavation and degeneration of the optic disc, and typical visual field defects. Surveys indicate that at least 2 per cent of people over 40 years of age have this disease. Probably more than one-half of those afflicted are unaware of its presence.[1] Thus, since a physician in almost any field of medicine will encounter patients who knowingly or unknowingly have glaucoma, he should be aware of the effects which his systemic drugs have upon intraocular pressure (IOP).

SYSTEMIC DRUGS COMMONLY USED BY OPHTHALMOLOGISTS TO LOWER INTRAOCULAR PRESSURE

The carbonic anhydrase inhibitors are commonly used to add "maximal" medical control to open-angle glaucoma (the usual painless type). The two most common ones are acetazolamide (Diamox) and dichlorphenamide (Daranide). These drugs decrease aqueous production by the ciliary body.[2]

Osmotic agents (urea, mannitol, glycerin) are used, usually preoperatively, to lower the extremely high pressure of angle-closure glaucoma (the "unusual" or "painful" or "congestive" type).

OTHER COMMONLY USED SYSTEMIC DRUGS WHICH MAY AFFECT INTRAOCULAR PRESSURE

A. *Drugs which may increase intraocular pressure.*

To prevent respiratory problems due to mucous secretion during general anesthesia, adequate dosage of an anticholinergic (parasympatholytic) drug such as atropine or scopolamine is essential. In patients who have glaucoma or are predisposed to the closed-angle type of glaucoma, some confusion exists regarding the preoperative parenteral use of these two drugs. Will this atropinization harm chronic, simple (open-angle) glaucoma? The answer is clearly *NO*.[3] There are three reasons why. First, the sensitivity of the eye to systemic atropine is relatively low. Second, the local effects of miotic therapy (the "usual" treatment for this type of glaucoma) are far greater than can be overcome by systemic atropinization. (Of course the miotic therapy should be continued at the usual frequency during the period of preoperative preparation, anesthesia and recovery.) Third, even if the intraocular pressure were slightly elevated for a day or two, no perceptible damage would result. Only one case can be found in the literature in which preanesthestic injection of atropine in a reasonable dosage may have fostered the erroneous belief that parenteral atropine or scopolamine is contraindicated in patients with open-angle glaucoma.[4] However at least six cases have been reported to show that orally ingested belladonna (with atropine as the active part) exacerbates a pre-glaucomatous condition—i.e., in persons whose eyes have narrow chamber angles and who are predisposed to acute attacks of closed-angle glaucoma.[5] So some caution must be used in giving these drugs to these patients. Fortunately, angle-closure glaucoma is uncommon.

Some of the ataraxics now commonly used have a mild anticholinergic (parasympatholytic) action. The manufacturers of diazepam (Valium) and amitriptyline hydrochloride (Elavil) state that these drugs are contraindicated in patients with glaucoma.[19] However no reports can be found in the recent ophthalmic literature implicating these drugs in precipitating glaucoma or worsening a preexistent glaucoma. Just as with atropine, the action upon the eye would be slight, and local miotic therapy should succeed in overcoming any ocular anticholinergic action.

Textbooks of pharmacology and therapeutics contain the legend that glaucomatous eyes may be endangered by organic nitrate or nitrite vasodilator drugs of the type employed for angina pectoris. Manufacturers of these drugs give similar warnings, some going so far as to say that their products are contraindicated in the presence of glaucoma. Actually, no case demonstrating precipitation of glaucoma or worsening of a preexisting glaucoma by nitrate or nitrite vasodilators can be found in the literature.[6] This apprehension has resulted from experiments, years ago, which showed that intraocular pressure could occasionally be raised slightly and very briefly by inhalation of amyl nitrite. No comparable observations on any of the related drugs—nitroglycerin or pentaerythritol tetranitrate (Peritrate)—have been published. It is conceivable that in eyes anatomically predisposed to angle-closure glaucoma, these drugs could induce a forward motion of the iris and lens sufficient to close the anterior chamber angle. This, however, has not been observed clinically.[6, 7] There should be positively no apprehension concerning the use of these drugs in patients with open-angle glaucoma.[6]

Succinylcholine (Anectine), an acetylcholine competitor, blocks the myoneural junction through depolarization. Initially, the extraocular muscles contract, causing a steep rise in the IOP.[3] When the patient is deeply anesthetized, succinylcholine

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Adverse Reactions: Drowsiness at daytime sedative dose levels, skin rashes, "hangover" and systemic disturbances are seldom seen.

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Usual Adult Dosage: As a daytime sedative, 15 mg. (¼ gr.) to 30 mg. (½ gr.) t.i.d. or q.i.d.

Available for daytime sedation: Tablets, 15 mg. (¼ gr.), 30 mg. (½ gr.); Elixir, 30 mg. per 5 cc. (alcohol 7%).

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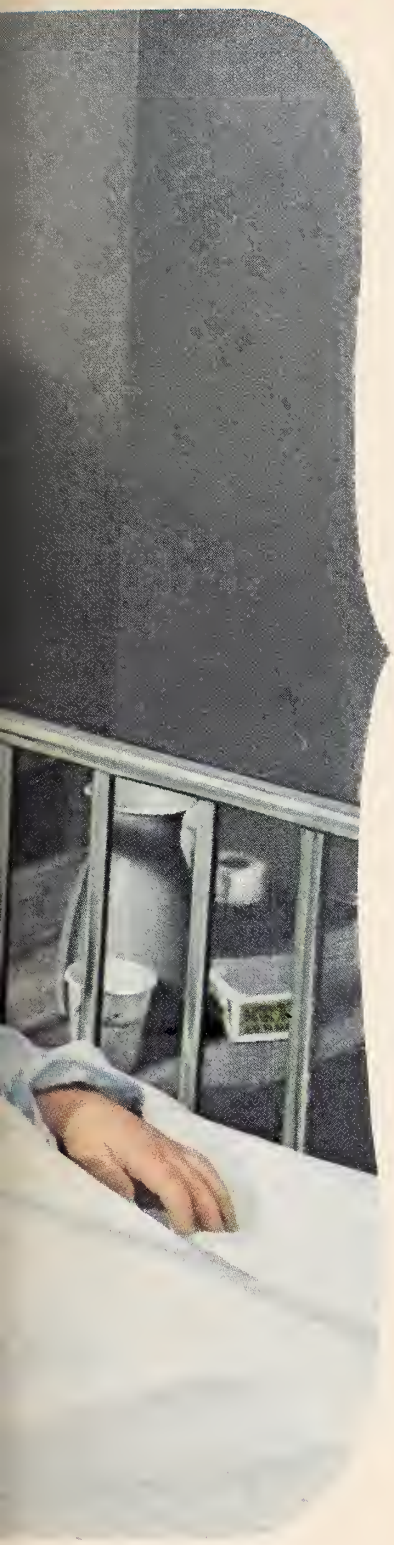
Warnings: Lomotil should be used with caution in patients taking barbiturates and with caution, if not contraindicated, in patients with cirrhosis, advanced liver disease or impaired liver function.

Precautions: Lomotil is a Federally exempt narcotic with theoretically possible addictive potential at high dosage; this is not ordinarily a clinical problem. Use Lomotil with considerable caution in patients receiving addicting drugs. Recommended dosages should not be exceeded, and medication should be kept out of reach of children. Should accidental overdosage occur, signs may include severe respiratory depression, flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils, tachycardia; continuous observation is necessary.

Adverse Reactions: Side effects reported with Lomotil therapy include nausea, sedation, dizziness, vomiting, pruritus, restlessness, abdominal discomfort, headache, angioneurotic edema, giant urticaria, lethargy, anorexia, numbness of the extremities, atropine effects, swelling of the gums, euphoria, depression and malaise. Respiratory depression and coma may occur with overdosage.

Dosage: The recommended initial daily dosages, given in divided doses until diarrhea is controlled, are as follows:

diarrheas...



- careful supervision
- electrolyte replacement
- specific anti-infective therapy

and...

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atropine sulfate 0.025 mg.

LOMOTIL, in conjunction with specifically indicated medical management, may be lifesaving in children with severe diarrhea.

Lomotil lowers the excessive intestinal propulsion characteristic of diarrhea. This reduction of precipitate intestinal flow allows a normal or more nearly normal reabsorption of fluid and electrolytes and counteracts the dehydration so hazardous to children.

Moreover, eight years' experience has demonstrated that Lomotil controls diarrhea with a minimum of unwanted secondary actions.

Senra del Valle and his associates[1] conducted a study of 477 children with diarrhea, most of whom were hospitalized with the disorder. Lomotil, used in 407 of the children, shortened the duration of the diarrhea.

Grinszpan, Goldstein and Divito[2] used Lomotil in 20 children with diarrhea and also reported a prompt disappearance of diarrhea. Harris and Beveridge[3] in a double-blind study of 50 children with diarrhea, however, found no clear pattern to suggest that Lomotil influenced the course of the condition.

Michener, Brown and Turnbull[4] added evidence supporting the beneficial effects of Lomotil in 80 children, concluding that Lomotil was highly useful in controlling abdominal cramping, diarrhea and hypermotility.

Children: Total Daily Dosage

3-6 mo. . . . ½ tsp.* t.i.d. (3 mg.)
6-12 mo. . . ½ tsp. q.i.d. (4 mg.)
1-2 yr. ½ tsp. 5 times daily (5 mg.)
2-5 yr. 1 tsp. t.i.d. (6 mg.)
5-8 yr. 1 tsp. q.i.d. (8 mg.)
8-12 yr. . . . 1 tsp. 5 times daily (10 mg.)
Adults: 2 tsp. 5 times daily (20 mg.) or 2 tablets q.i.d.

*Based on 4 cc. per teaspoonful.

Maintenance dosage may be as low as one-fourth the initial daily dosage.

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SEARLE

Research in the Service of Medicine



THE BETTMAN ARCHIVE

Just one tablet at bedtime • Prevents painful night leg cramps • Permits restful sleep

How many of your patients stamp their feet at night and lose sleep because of painful leg cramps? Unless prompted, they usually fail to report this distressing condition and suffer needlessly.

One tablet of QUINAMM at bedtime usually controls distressing night cramps and permits restful sleep with the initial dose.

Prescribing information—Composition: Each white, beveled, compressed tablet contains: Quinine sulfate, 260 mg., Aminophylline, 195 mg. **Indications:** For the prevention and treatment of nocturnal and recumbency leg muscle cramps, including those associated with arthritis, diabetes, varicose veins, thrombophlebitis, arteriosclerosis and static foot deformities. **Contraindications:** QUINAMM is contraindicated in pregnancy because of its quinine content. **Side Effects/Precautions:** Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. Discontinue use if ringing in the ears, deafness, skin rash, or visual disturbances occur. **Dosage:** One tablet upon retiring. Where necessary, dosage may be increased to one tablet following the evening meal and one tablet upon retiring. **Supplied:** Bottles of 100 and 500 tablets.



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has no pressure-elevating effect upon his eyes. It should not be used in glaucomatous eyes. Gallamine (Flaxedil) is effective in preventing the IOP rise caused by succinylcholine.[9]

The long-term administration of systemic glucocorticoids may have an effect on the IOP. The mean IOP has been increased a statistically significant amount by the long-term use of these compounds.[3, 14] The pressure-elevating effect is greater if open-angle glaucoma is present or if there is a family history of glaucoma.[15] However the long-term use of mineralocorticoids (DOCA-desoxycorticosterone acetate and aldosterone) only rarely elevates the IOP either in normal individuals or in glaucomatous patients.[15] The prophylactic use of *local* steroids for corneal abrasions, and the routine use of them in treating conjunctivitis and blepharitis must be condemned. Numerous patients will develop a steroid-induced glaucoma.[3] The eye will be white and pain-free, but visual field defects can develop and treatment will be difficult. This type of glaucoma can develop even after only several days' use of topical steroids.[3]

Caffeine can occasionally cause a small, transient rise in IOP in both normal and glaucomatous eyes.[7]

B. *Drugs which may decrease intraocular pressure.*

With any of the commonly used general anesthetics, there usually is a decrease in the intraocular pressure related primarily to the depth of anesthesia.[3, 8] This pressure drop is seen in both normal and glaucomatous eyes. Following anesthesia, the intraocular pressure rapidly returns to its preanesthetic level.

Morphine, meperidine hydrochloride (Demerol) and other narcotics may cause a slight lowering of the intraocular pressure in normal and in glaucomatous eyes.[4, 8]

Barbiturates may lower the intraocular pressure slightly.[4] Anesthesia produced by intravenous administration of thiopental sodium (Pentothal) causes a significant drop in IOP both in normal and in untreated glaucomatous eyes.[3]

Ethanol intake is not harmful to glaucoma patients.[9] It usually causes a slight decrease in the IOP of both normal and glaucomatous eyes (more decrease in glaucomatous eyes.)[10] An osmotic mechanism seems likely—a serum concentration brought about by suppression of circulating antidiuretic hormone.[3, 9]

Carbonic anhydrase inhibitors are much superior to other types of orally administered diuretic agents (and antihypertensive agents) for lowering the IOP.[9, 11] Studies have been done with the following drugs: chlorothiazide (Diuril); hydrochlorothiazide (Hydrodiuril); guanethidine (Ismelin); methyldopa (Aldomet); ethacrynic acid (Edecrin); chlormerodin (Neohydrin); bendroflumethiazide (Naturetin); furosemide (Lasix); triameterene (Dyrenium) and reserpine,[11, 12] Most of those drugs will lower the IOP slightly in normal and glaucomatous eyes. However their pressure-lowering effects are unpredictable and slight. None of the diuretic agents consistently raised the IOP.

Administration of digitalis glycosides affords another means by which the IOP can be therapeutically lowered in open-angle glaucoma.[13] Aqueous production is reduced through enzymatic inhibition in the ciliary body. Only a single daily dose of digoxin is sufficient to maintain the secretory inhibition.[3] However, the carbonic anhydrase inhibitors are much more effective and efficient in lowering IOP. Also, acetazolamide (Diamox) is much safer. Combinations of these glycosides with the carbonic anhydrase inhibitors are not recommended because of the high incidence of anorexia and nausea.[13]

Diphenylhydantoin (Dilantin) has no effect upon IOP.[7]

Vitamin C, in a dose of 500 mg. twice a day, can significantly lower the IOP in the normal human eye.[9]

Norethindrone with mestranol (Ortho-Novum) and norethynodrel with mestranol (Enovid) both have been shown to lower the IOP significantly in patients with open-angle glaucoma.[17] However other local or systemic drugs were still necessary for the control of the patients' glaucoma.

A transient reduction in IOP has been reported from single doses of chlorpromazine (Thorazine), but repeated administrations do not sustain that lowering.

CONCLUSION

All physicians engaged in clinical practice should realize that certain systemic drugs which they use may affect their patients' intraocular pressures. The effects may be advantageous or damaging. If they know and understand these effects, they will be able to give their patients the best possible care.

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Recently it has been estimated that about 86 per cent of positive cultures in first attacks of urinary tract infection are *E. coli*.[1] It has also been noted that "The coliform group, especially *E. coli*, accounts for approximately 90 per cent of initial infections...."[2]

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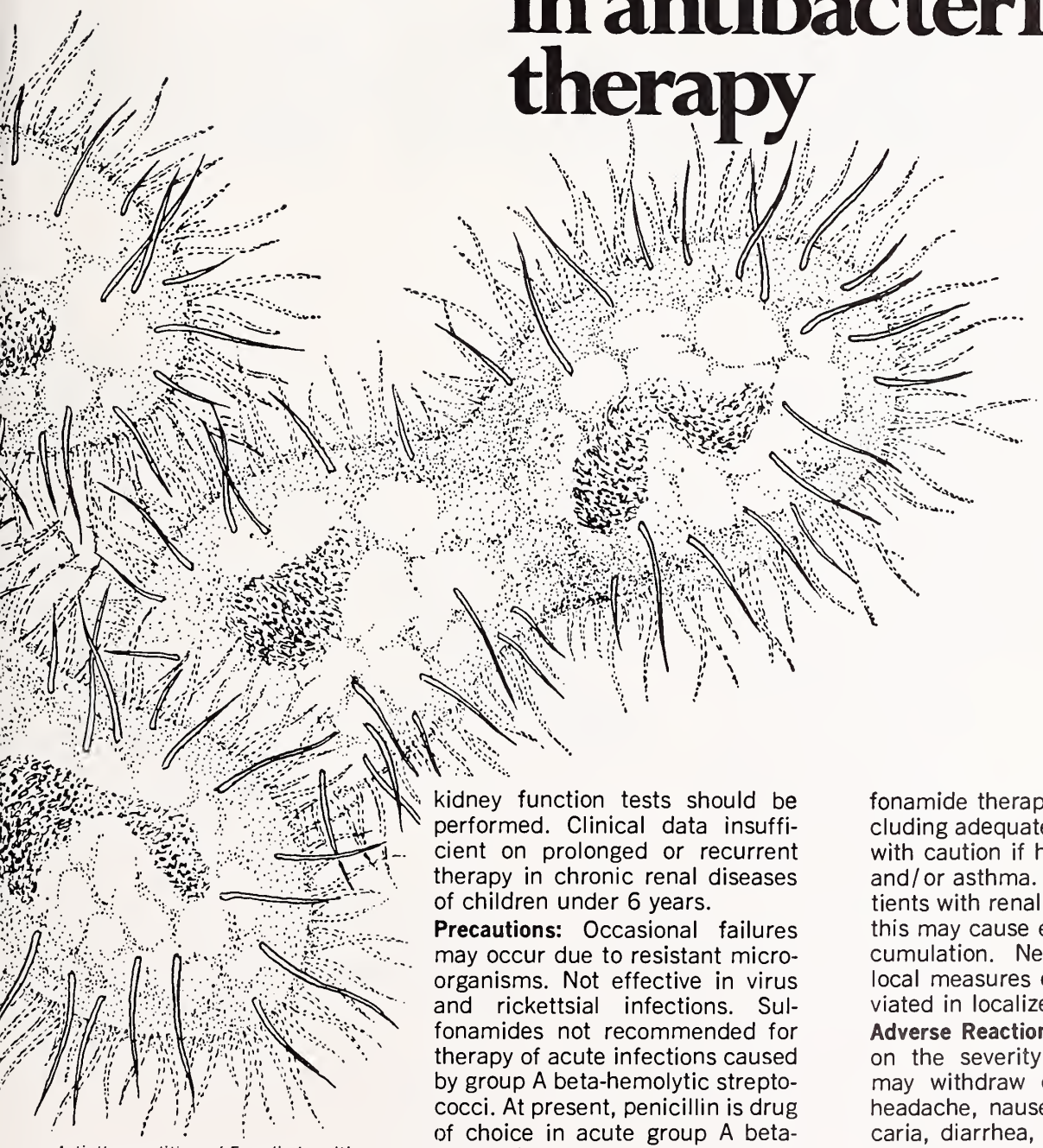
Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute and chronic urinary tract, respiratory and soft tissue infections due to susceptible microorganisms; prophylactically following diagnostic instrumental procedures on genitourinary tract.

Contraindicated in sulfonamide-sensitive patients, pregnant females at term, premature infants, or newborn infants during first 3 months of life.

Warnings: Use only after critical appraisal in patients with liver or renal damage, urinary obstruction or blood dyscrasias. Deaths reported from hypersensitivity reactions, Stevens-Johnson syndrome, agranulocytosis, aplastic anemia and other blood dyscrasias. In closely intermittent or prolonged therapy, blood counts and liver and

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kidney function tests should be performed. Clinical data insufficient on prolonged or recurrent therapy in chronic renal diseases of children under 6 years.

Precautions: Occasional failures may occur due to resistant microorganisms. Not effective in virus and rickettsial infections. Sulfonamides not recommended for therapy of acute infections caused by group A beta-hemolytic streptococci. At present, penicillin is drug of choice in acute group A beta-hemolytic streptococcal infections; although Gantanol has produced favorable bacteriologic conversion rates in this infection, data insufficient on long-term follow-up studies as to its effect on sequelae of rheumatic fever or acute glomerulonephritis. If other treatment cannot be used and Gantanol is employed in such infections, *important that therapy be continued in usual recommended dosage for at least 10 days*. Observe usual sulfonamide therapy precautions, including adequate fluid intake. Use with caution if history of allergies and/or asthma. Follow closely patients with renal impairment since this may cause excessive drug accumulation. Need for indicated local measures or surgery not obviated in localized infections.

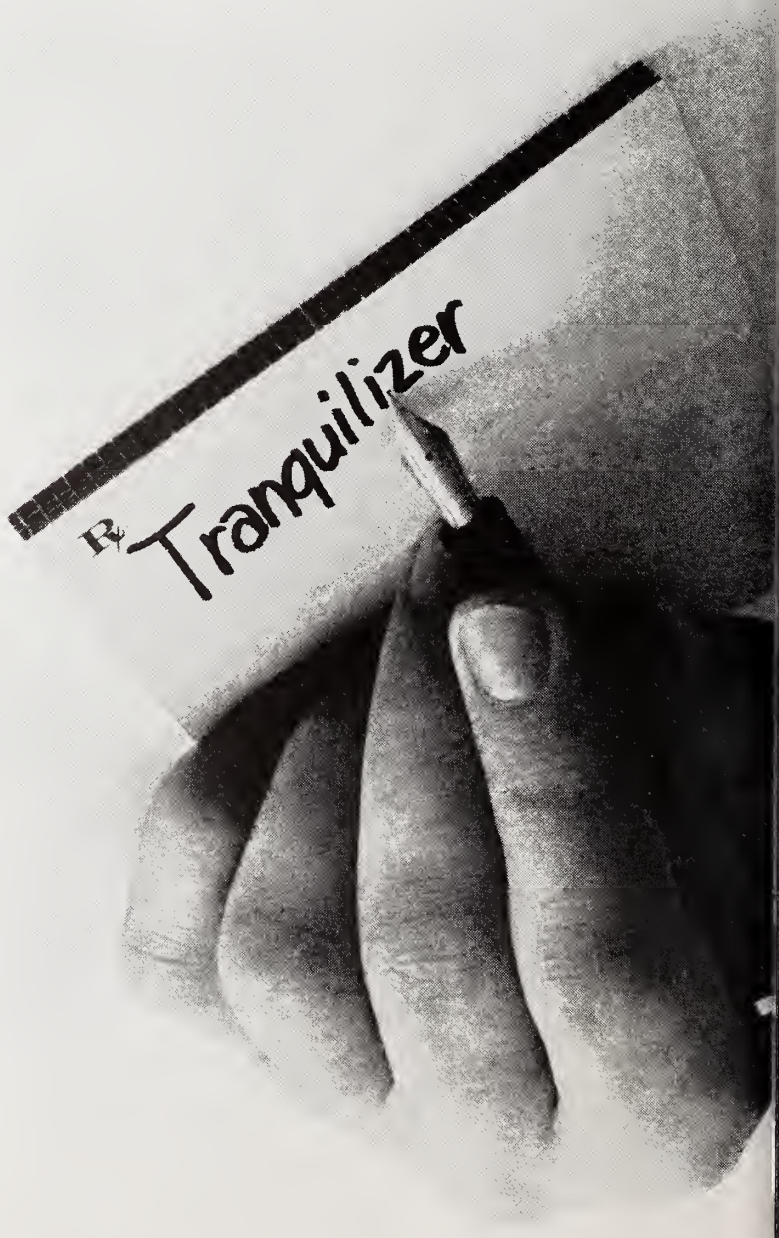
Adverse Reactions: Depending upon the severity of the reaction, may withdraw drug in event of headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, Stevens-Johnson syndrome, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

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Contraindications: Do not use drugs of the M.A.O.I. class with Pertofrane. Hyperpyretic crises or severe convulsive seizures may occur; potentiation of adverse effects can be serious or even fatal. When substituting this drug in patients receiving an M.A.O.I., allow an interval of at least 7 days. Initial dosage in such patients should be low and increases should be gradual and cautiously prescribed.
Warning: Activation of psychosis may occasionally be observed in schizophrenic patients. Do not use in patients under 12 years old, and do not use in women who are or may become pregnant unless the clinical situation warrants the potential risk.
Precautions: Careful supervision and protective measures for potentially suicidal patients are necessary. Discontinuation of therapy or adjunctive use of a sedative or tranquilizer may be necessary in the presence of increased anxiety or agitation, hypomania or manic excitement. However, phenothiazines may aggravate the condition. Atropine-like effects may be more pronounced (e.g. paralytic ileus) in susceptible patients and in those receiving anticholinergic drugs (including antiparkinsonism agents). Carefully observe patients with increased intraocular pressure. Prescribe cautiously in hyperthyroid patients and in those receiving thyroid medications. Cardiovascular complications (myocardial infarction and arrhythmias) are potential risks since they have occasionally occurred with imipramine, the parent compound. Desipramine may block the pharmacologic activity of guanethidine and related adrenergic neuron-blocking agents. Hypertensive episodes have been observe during surgery in patients on desipramine therapy.
Before prescribing the drug, the physician should be thoroughly familiar with prescribing informatio with the literature, with all adverse reactions, with the diagnosis and management of depression, and wi the relative merits of all measures f

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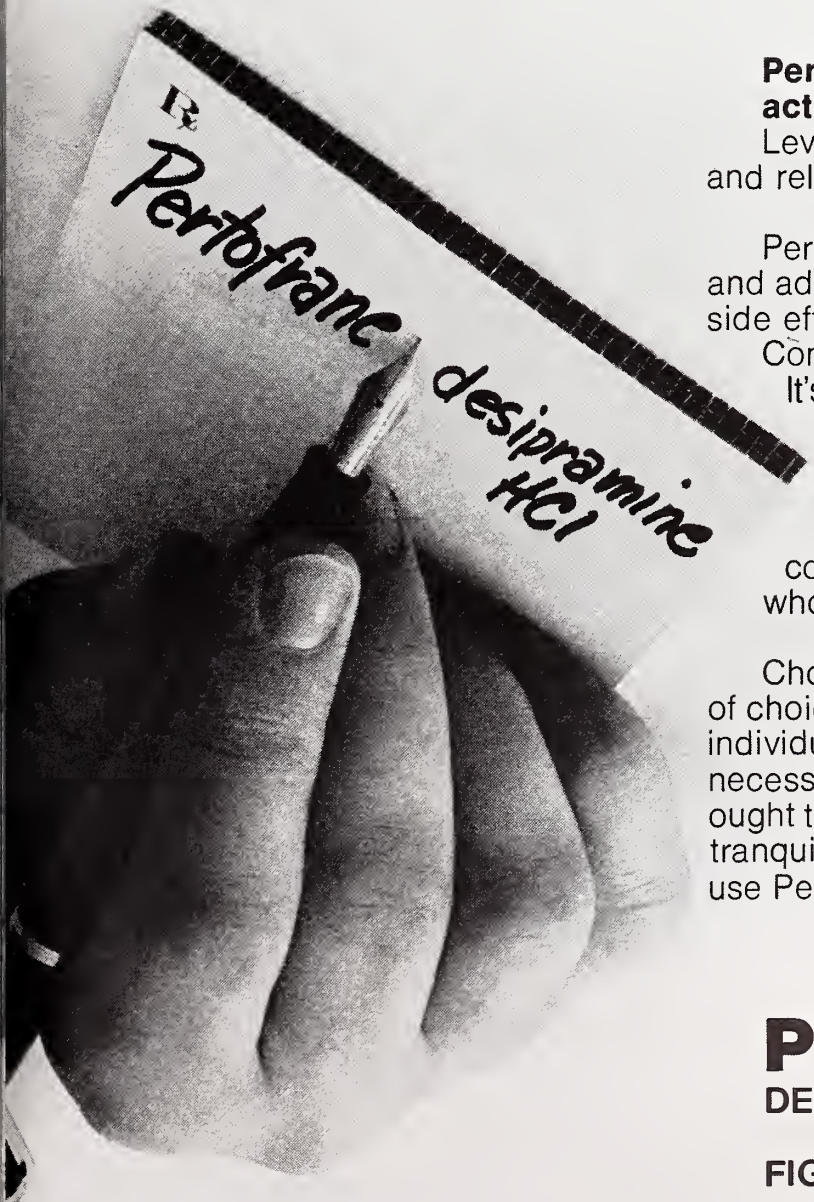
reating the condition.
Adverse Reactions: Dry mouth, constipation, disturbed visual accommodation, anorexia, perspiration, insomnia, drowsiness, dizziness, headache, nausea, epigastric distress, and skin rash (including photosensitization) may appear. Since orthostatic hypotension has occurred, carefully observe patients requiring concomitant vasodilating therapy, particularly during the initial phases. Other adverse reactions include tachycardia, changes in EEG patterns, tremor, falling, mild extrapyramidal activity, neuromuscular incoordination, epileptiform seizures. A confusional state (with such symptoms as hallucinations and disorientation) occurs occasionally and may require reduced dosage or discontinuance of therapy. Rarely, transient eosinophilia, slight elevation in transaminase levels, transient jaundice, or liver damage have occurred. If abnormalities occur in liver function tests, discontinue drug and investigate. Occasional hormonal effects, particularly decreased libido or impotence and instances of gynecomastia, galactorrhea and female breast enlargement have been observed. Urinary frequency or retention may occur. The drug should be discontinued if agranulocytosis, bone marrow depression, jaundice, thrombocytopenia, or purpura occur.
Dosage: 25 to 50 mg. t.i.d. The maximum daily dose is 200 mg. Continue maintenance dosage for at least 2 months after obtaining satisfactory response. Generally, elderly and adolescent patients should be given low doses.
Availability: Pink capsules of 25 mg. in bottles of 100 and 1000.
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The "Verbal" Order

If you stood at the nurse's desk and told her to give the patient a sixth of a grain of morphine, she would at one time have asked you to put it in writing. But if you called in the same order by telephone, as for an emergency case, she could hardly refuse the same spoken order, since time was too important. So she refused the one and accepted the other, which made little or no sense, since both were unwritten.

Now we call-in orders, and they are accepted and carried out. But some time later we hear from Medical Information, or what used to be called the record room, and we are asked to sign our "verbal" orders, or telephone orders. So we sign orders we do not remember ordering, and we look occasionally to be sure that the order made sense and proved to be proper. But we cannot remember orders given days or weeks ago.

And we have yet a more important point to make. If the nurse trusted us and believed us enough to accept the order and to carry it out, why cannot the record-keeper share the nurse's trust? How can signing an order a week later possibly make the situation honest if it were not already so?

We agree, there is a point somewhere, but we cannot put our finger on it. Signing an unremembered order does not seem to solve it.

And anyway, *written* orders are verbal, too. Anything that uses words is verbal. A spoken order is an *oral* one.—Editorial in the NEBRASKA STATE MEDICAL JOURNAL, January, 1969

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Contraindications: Hypersensitivity to tetracycline.

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Precautions: Nonsusceptible organisms may overgrow; treat superinfection appropriately. Tetracycline may form a stable calcium complex in bone-forming tissue and may cause dental staining during tooth development (last half of pregnancy, neonatal period, infancy, early childhood).

Side Effects: *Gastrointestinal*—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. *Skin*—maculopapular and erythematous rashes; exfoliative dermatitis; photosensitivity; onycholysis, nail discoloration. *Kidney*—dose-related rise in BUN. *Hypersensitivity reactions*—urticaria, angioneurotic edema, anaphylaxis. *Intracranial*—bulging fontanels in young infants. *Teeth*—yellow-brown staining; enamel hypoplasia. *Blood*—anemia, thrombocytopenic purpura, neutropenia, eosinophilia. *Liver*—cholestasis at high dosage.

Upon adverse reaction, stop medication and treat appropriately.

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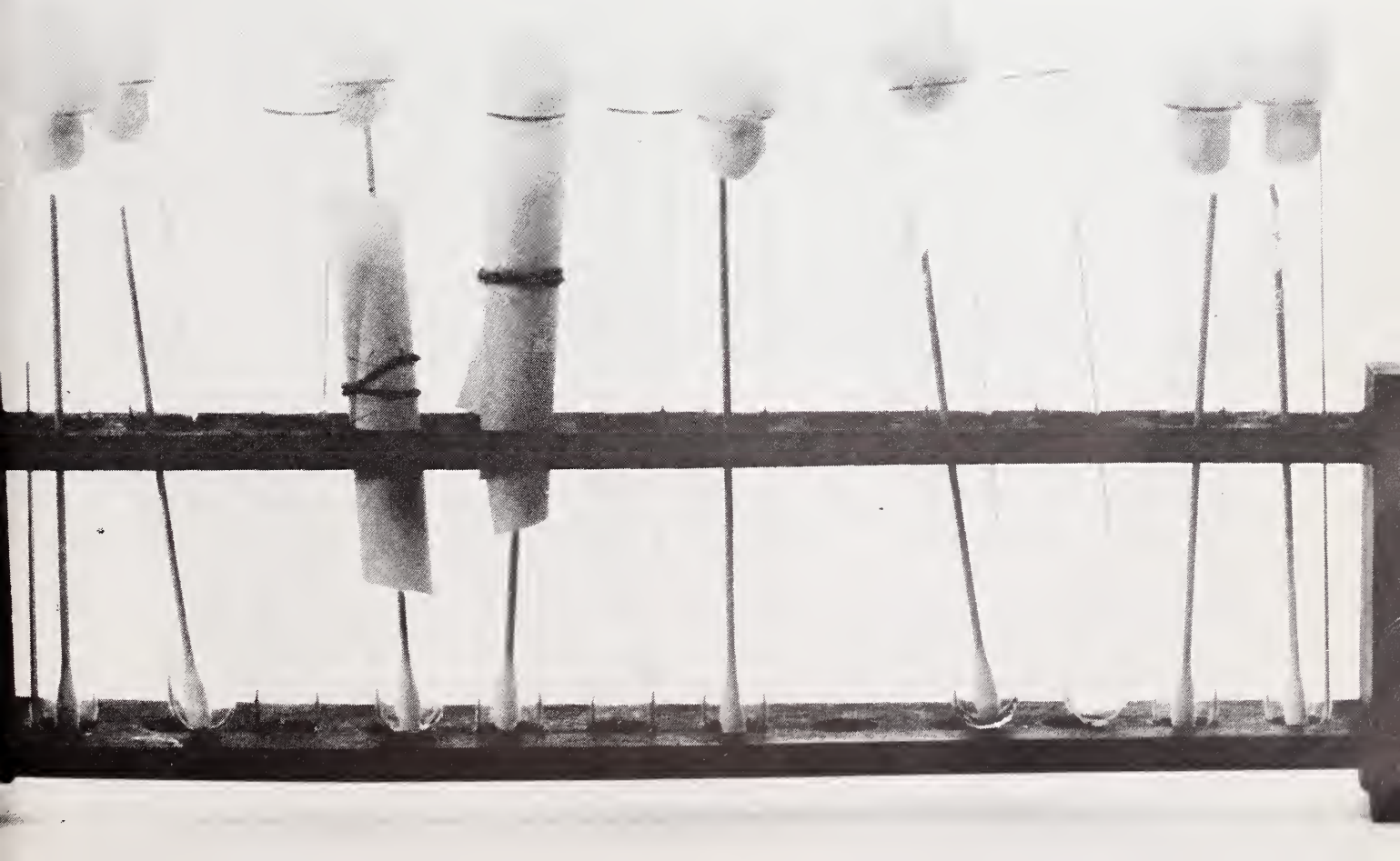
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←Prescribing Information

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INFORMATION FROM THE
IOWA HEART ASSOCIATION

Role of the Intra-Atrial Electrogram in the Clinical Interpretation of Arrhythmias

JOHN W. LISTER, M.D.
Miami Beach, Florida

Irregularities of the cardiac rhythm are a common phenomenon in patients with heart disease. The prompt treatment of an arrhythmia is facilitated by the exact diagnosis of the abnormal rhythm. The key to arrhythmia diagnosis is the determination of the temporal relationship between atrial and ventricular activation.

During many tachycardias atrial activity (P waves) frequently cannot be seen on the standard lead-surface electrocardiogram; consequently, it may be difficult or impossible to determine the origin of a tachycardia—i.e. sinus, atrial, A-V nodal or ventricular. Recording of the right intra-atrial electrogram, clearly defines the atrial rhythm, and the temporal relationship of atrial to ventricular activation.

An electrode wire or a standard bipolar electrode catheter, with electrodes 1 cm. apart, can readily be passed into the right atrium via a needle puncture of the femoral vein or surgically-exposed anticubital vein. From an electrode wire, a unipolar intra-atrial electrogram can be obtained, and from a bipolar catheter, a unipolar and bipolar intra-atrial electrogram can be recorded.

The unipolar intra-atrial electrogram is recorded by connecting an intra-atrial electrode to the V lead of the electrocardiograph machine. The unipolar electrogram records the entire electrical sequence of P wave and QRS complex, and magnifies the size of the P wave. One obtains the bipolar intra-atrial electrogram by connecting one intra-atrial electrode to the right arm lead and the other intra-atrial electrode to the left arm lead of the electrocardiograph machine, and recording on Lead I. The bipolar electrogram primarily records the time of arival of the atrial impulse in the area of the electrodes, and accurately delineates the timing of the P wave in the cardiac cycle. In the bipolar electrogram, the ventricular component (QRS complex) is usually a minor component or is not present on the tracing. When the QRS complex and P wave are simultaneous, the time of atrial activation is clearly depicted by the bipolar intra-atrial electrogram. In most instances, atrial activity can be clearly delineated by the unipolar electrogram. Not infrequently, however, the P waves are buried in the QRS complex or T waves, and the unipolar intra-atrial electrogram does not permit a clear definition of the rhythm. In these cases, recording of the atrial rhythm by the use of the bipolar electrogram clarifies the rhythm.

In our experience, the recording of unipolar and bipolar intra-atrial electrograms has been an important aid in the diagnosis of arhythmias. In cases of atrial flutter and tachycardia, the ventricular rate is easily determined from the standard electrocardiogram, but frequently the atrial rate cannot be ascertained. The intra-atrial electrograms clearly show the atrial rate. Thus, the degree of block at the atrioventricular node can be determined. Knowledge of the degree of A-V junctional block often helps the physician decide upon the treatment of choice for an arrhythmia.

We have had a number of cases in which repeated electrocardiograms have been interpreted as sinus tachycardia with first degree atrioventricular block. However when intra-atrial electrograms were recorded, these rhythms were shown to be atrial tachycardia with 2:1 A-V block. In one of these cases, the electrocardiogram was interpreted as sinus tachycardia with first-degree heart block and incomplete right bundle branch block. There was an R′ in the QRS complex in leads V1 and V2. The unipolar electrogram did not clarify the rhythm, but the bipolar electrogram clearly showed atrial tachycardia with 2:1 A-V block, and the R′ in leads V1 and V2 was not due to an intraventricular conduction defect but to a P wave superimposed on the end of the QRS complex.

The recordings of intra-atrial electrograms have clarified the rhythm in five cases of tachycardias with irregularly irregular ventricular rates, which did not slow after the administation of relatively large doses of digitalis. From standard-lead electrocardiograms three of the above five arrhythmias had been interpreted as atrial fibrillation with rapid ventricular response. In one case, atrial fibrillation with a rapid ventricular response was present; in two cases, atrial tachycardia with variable A-V block was present; and in two cases there was a wandering atrial pacemaker with an

(Continued on page 143)

Dr. Lister is chief, Section of Electrophysiology, Division of Cardiology, in the Department of Internal Medicine of the Mount Sinai Hospital of Greater Miami.

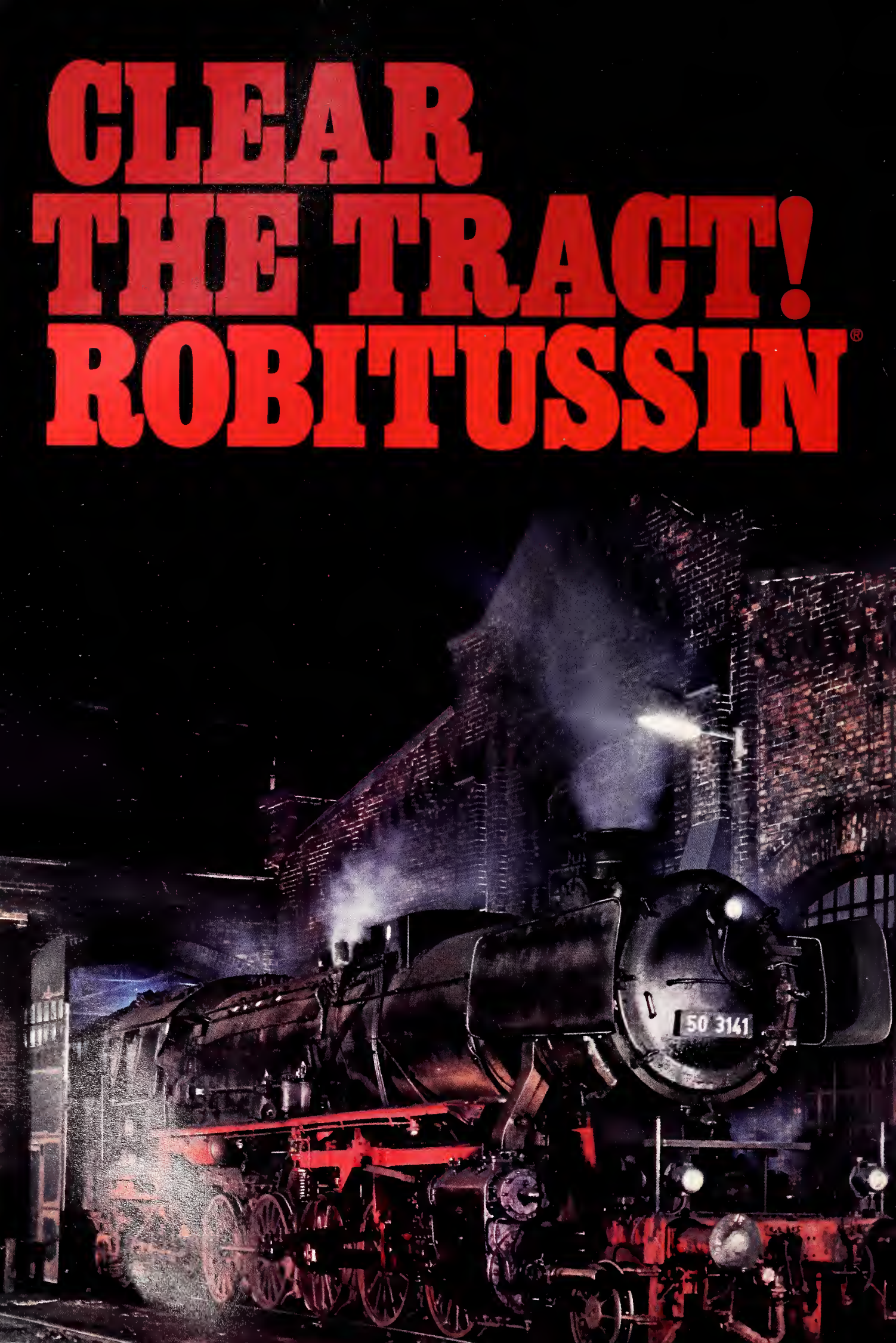


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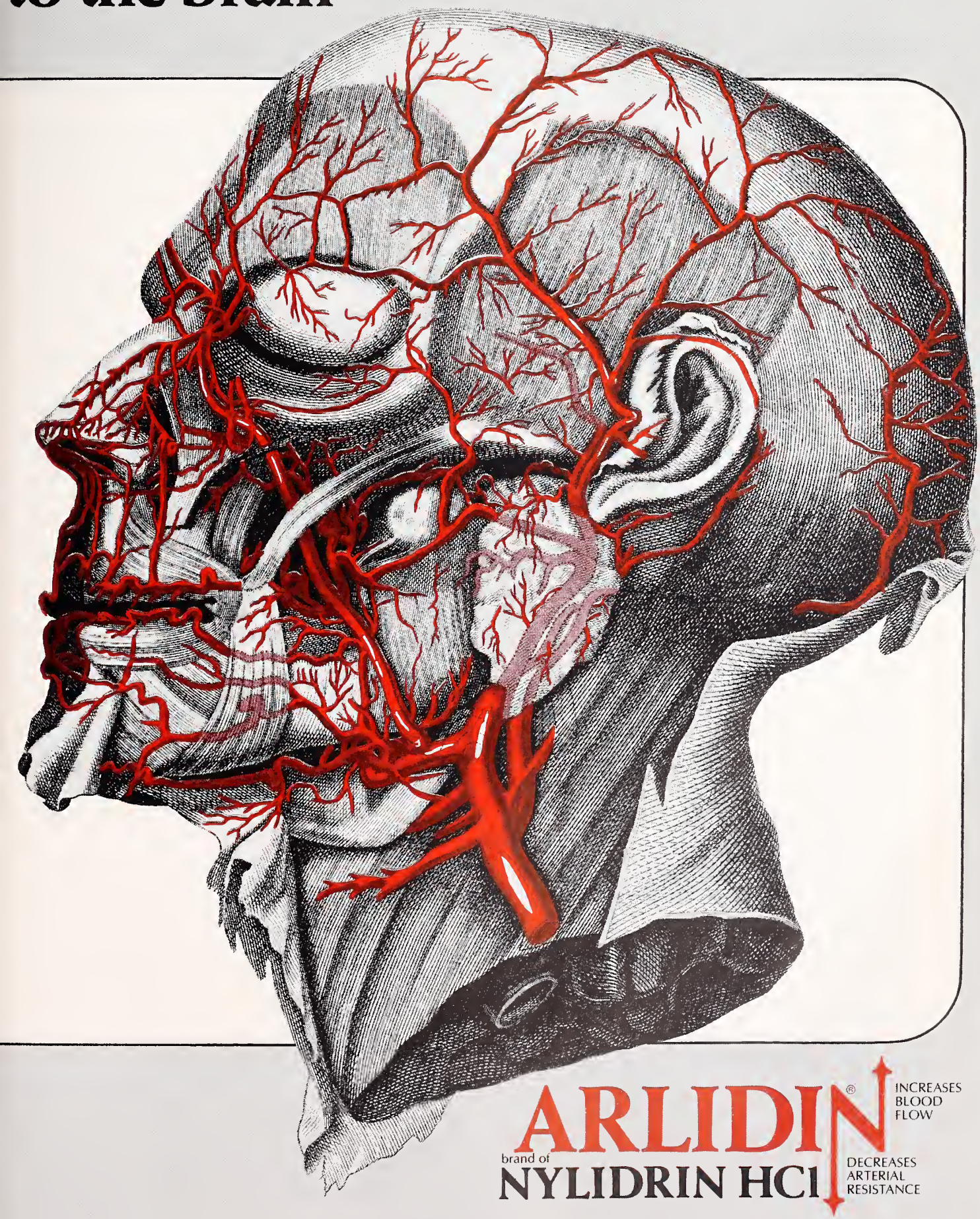
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SUPPLIED: Tablets, 6 mg., scored; bottles of 100 and 1000. Parenteral, 5 mg. per cc., 1 cc. ampuls (5 per box); 10 cc. multiple-dose vials (1 per box).
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Recent Discoveries Regarding "Hyperlipemia"

Investigators from the National Heart Institute, Bethesda, Maryland, reported at the 41st Scientific Session of the American Heart Association, in Miami Beach November 21-24, and in a recent issue of the NEW ENGLAND JOURNAL OF MEDICINE that clofibrate (Atromid-S, Ayerst) appears to produce dramatic improvement of peripheral vascular disease associated with Type III lipid-transport disorder, but they cautioned against scattergun use of this highly publicized lipid-lowering compound.

Previously reported studies by the team headed by Drs. Donald S. Fredrickson and Robert I. Levy have indicated that high cholesterol or triglyceride levels in the blood may be symptomatic of any of at least five different lipid-transport disorders, each of which differs from the others not only in symptoms and prognosis, but also in basic mechanism and responsiveness to treatment. These five disorders have often been lumped together under the general heading "hyperlipemia," but the NHI researchers say that treating them as one disease is analogous to treating measles, mumps and chickenpox as a single infectious disease.

Cholesterol, triglycerides and other lipids do not travel free in the circulation, they discovered, but are bound to specific proteins. The resulting lipoproteins differ in density and also in electrical charge, and thus it is possible to separate the lipoprotein classes by means of simple, low-cost electrophoretic techniques. A sample of the patient's serum is spotted on a paper strip and placed in an electrophoretic cell containing an albumin buffer solution. The electric field set up in the solution causes the lipoproteins to migrate along the paper strip at rates proportional to their electrical charges. After a time, the migrations result in several discrete lipoprotein bands. Closest to the original spot are chylomicrons. These are the tiny fat droplets, composed chiefly of triglycerides, that impart a milky appearance to plasma after a fatty meal. They contain very little protein, and so tend to "stay put" in an electric field.

The next two bands contain the pre-beta or very-low-density lipoproteins and the slightly heavier beta lipoproteins. These carry chiefly triglyceride and cholesterol, and excessive blood levels of these two classes are associated with accelerated development of atherosclerosis. Traveling farthest from the original spot are the high-density alpha lipoproteins. This class causes no trouble. In fact, high blood levels of high-density lipoprotein appear to confer some measure of protection against atherosclerosis.

Type I hyperlipoproteinemia is characterized by very high levels of chylomicrons. Recurrent abdominal pain and the appearance of lipid deposits in the skin (xanthomata) are common symptoms. It is readily controlled by diets containing not more than 20 per cent of total calories as fat. Low-fat diets produce prompt relief of pain and rapid regression of xanthomata.

Type II is characterized by abnormally high blood levels of beta (low density) lipoproteins. It is probably responsible for most cases of "hypercholesterolemia" encountered by physicians. It may be a secondary manifestation of hypothyroidism or of high-fat diets, but often it is hereditary. The hereditary form is dominant, and can usually be detected in early life. It is frequently associated with premature development of coronary heart disease. Type II can be controlled by low-cholesterol diets or by therapeutic diets combined with cholesterol-lowering drugs. In affected families, a history of heart attacks before age 50 is not uncommon.

Type IV is characterized by an increase in very-low-density lipoproteins that have pre-beta motility on electrophoresis. Patients with Type IV frequently are overweight and may be mildly diabetic. Symptoms are reduced or relieved by reduction in the amount of dietary carbohydrates, plus caloric restriction to help the patient reach and maintain a desirable weight.

Type V appears sometimes to be secondary to other diseases such as insulin-dependent diabetes, pancreatitis or alcoholism. It is a mixed hypertriglyceridemia, with an increase in both chylomicrons and pre-beta lipoproteins. Hyperlipoproteinemia can be minimized and symptoms decreased by a diet high in protein and directed toward maintaining ideal body weight.

Drs. Robert F. Zelis, Dean T. Mason, Eugene Braunwald and Robert Levy reported that patients with Type III are particularly susceptible to the development of peripheral vascular disease (PVD), and that objective improvement of PVD follows treatment with Atromid-S. Although coronary artery disease is common in patients with Types II, III and IV hyperlipoproteinemia, the occurrence of PVD had not previously been established in them. The NHI physicians studied five patients before and after three to five months of treatment with a therapeutic diet and Atromid-S. Objective measurement of improvement in the most severely affected extremity indicated a dramatic increase in maximum bloodflow to that limb.

Few side effects to this drug had been reported previously, but studies by Dr. Terry Langer and Dr. Levy suggest that muscle inflammation (myositis) and liver enlargement are potential hazards to its long-term administration. The drug is extremely effective in patients with elevations in cholesterol and glycerides associated with Type III hyperlipoproteinemia, and less effective in patients with the Type II disease.

Recent data suggest that cholestyramine (Cuemid, Merck; Questran, Mead Johnson) is the drug of choice in Type II cases. It forms complexes with bile acids in the lower intestine, and these complexes are excreted in the feces. Bile acids are

(Continued on page 154)

Role of the Intra-Atrial Electrogram

(Continued from page 138)

irregular atrial rate and varying A-V conduction. The clarification of these arrhythmias facilitated their treatment.

In two cases of tachycardia, the EKG showed a regular rate and aberrant ventricular activation. On auscultation, the first heart sound was of constant intensity. From these findings it could not be clearly established whether these were supraventricular or ventricular tachycardias. The intra-atrial electrograms revealed that one case was a ventricular tachycardia with atrial fibrillation, and the other case was ventricular tachycardia with atrial standstill. The diagnosis of the arrhythmias facilitated their prompt treatment. These cases also demonstrated that the constant intensity of the first heart sound does not rule out ventricular tachycardia.

In A-V nodal rhythms and in certain instances of A-V dissociation, atrial activity may be obscured by the QRS complex. The recording of intra-atrial electrograms will clarify these rhythms. In A-V junctional rhythms there may be A-V dissociation, retrograde activation of the atria, or retrograde A-V block. In A-V dissociation there is a beat-to-beat change in the temporal relationship between atrial and ventricular activation, because the atria and the ventricles are beating independently of each other. When retrograde atrial activation is present, there is usually a fixed temporal relationship between ventricular and atrial depolarizations. In cases of A-V junctional rhythms with retrograde A-V block, either the atria are beating slower than the ventricles or atrial standstill may be present. The specialized conduction system of the heart is a two-way conducting system. Therefore, in the presence of A-V dissociation, when the atria are beating at a significantly greater rate than the ventricles, antegrade A-V block is present. When the atria and ventricles are beating independently of each other at about the same rates (isorhythmic A-V dissociation), a functional rather than a pathologic block is usually present at the A-V node. When the ventricles are beating at a faster rate than the atria, retrograde A-V block is present.

In complex arrhythmias, the recording of unipolar and bipolar intra-atrial electrograms always depicts the temporal relationship between atrial and ventricular activation. The delineation of the time relationship of atrial to ventricular depolarization is an important aid in the diagnosis and treatment of arrhythmia.

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1969 National Medicolegal Symposium

LAS VEGAS, MARCH 13-15

Following is the program for the 1969 National Medicolegal Symposium, jointly sponsored by the American Medical Association and the American Bar Association, which will be held at Caesar's Palace, Las Vegas, Nevada, on March 13, 14 and 15. The registration fee is $40, payable in advance. Room reservations should be made by writing to the Las Vegas Convention Bureau. Blocks of rooms are being held for registrants at Caesar's Palace and the Flamingo Hotel ($14 and up), and at The Sands and Hotel Tropicana ($16 and up).

Thursday Afternoon

WHO WANTS TO PAY UNNECESSARY TAXES? THE CASE FOR PLANNING: Richard H. Forester, Esq.; John R. Cohan, Esq.; Carl A. Statsman, Jr., Esq.; Seymour Brockman, M.D.; Wilbur Bailey, M.D.; and William F. Quinn, M.D.

"Risks and Rewards of Professional Corporations": Jule M. Hannaford, Esq.

Friday Morning

GETTING AWAY WITH MURDER—A MEDICOLEGAL VIGNETTE: John W. Miner, Esq.; Wilbur Littlefield, Esq.; Richard O. Myers, M.D.; and Melvin L. Sommers, M.D.

DISABILITY—WHAT KIND AND HOW MUCH?
- Workmen's Compensation: Edmund D. Leonard, Esq.
- Civil Litigation: Samuel Langerman, Esq.
- Doctor in the Middle: David Fisher, M.D.

Friday Afternoon

LIFE, DEATH AND HUMAN TRANSPLANTATION
- A Transplant Surgeon's View: David H. Hume, M.D.
- An Internist's View: Elliot Corday, M.D.
- Today's Law and Its Problems: Blair L. Sadler, Esq.
- A Legal Solution: E. Blythe Stason, Esq.

Saturday Morning

HOW TO AVOID MALPRACTICE LIABILITY
- Key Rules of Malpractice Liability: William F. Martin, Esq.
- Why Some Physicians Lose Malpractice Cases: Philip H. Manger, Jr., Esq.
- Medical Accident Prevention—Some Danger Zones: Arthur J. Manix, Jr.
- Can Legislative Remedies Help Minimize Claims? John B. Dillon, M.D.

PRE-TRIAL SCREENING OF MALPRACTICE CLAIMS—A MEDICAL VIGNETTE
- The New Mexico Plan: John K. Torrens, M.D.; Eric Best, M.D.; Clifford Molholm, M.D.; Jackson Akin, Esq.; William J. Heck, Esq.; and Pat Shehan, Esq.
- The Portland Plan: J. Oppie McCall, M.D.; Robert H. Tinker, M.D.; Matthew McKirdie, M.D.; and Thomas E. Cooney, Esq.

Iowa Association of Medical Assistants

Your Best Must Pass the Test!

When it comes to sterilizing technics in the medical office, there is no margin for error and no tolerance for anything short of complete asepsis. You must do your very best, you must follow the latest methods, and you must be continuously alert if you are to protect the patient against an infection that might occur.

No more than a hundred years ago, a brilliant Austrian physician was held up to public ridicule for suggesting that doctors and nurses attending women in childbirth should wash their hands between examinations, as a means of preventing the spread of infection. There are men still living today who remember hearing or meeting Louis Pasteur, the father of bacteriology. Those men knew the battle that they began would be continuous, and it still will not have been won until every one of us accepts and is ever mindful of the principles that they established. Fortunately, we have new and efficient equipment and methods that we can use, but we must never be careless.

Our work requires intelligence, chemicals, boiling water, steam, cleansing solutions and certain pieces of apparatus. Our enemy is an organism visible only through a microscope, but it is capable of undoing all of the lifesaving, health-giving work to which the doctor and his assistant are devoting their time and effort!

The scalpel. If there are bacteria on the scalpel, they can enter the patient's tissue. Thus, the scalpel blade should be changed after each time that it is used. To be sure, it should be kept in a strong rust-proof solution. Because there are microorganisms in the air, the scalpel should never be exposed, even though it is lying in a sterile field. Sterile instruments must always be covered by a sterile towel until the doctor is ready to use them.

It must be borne in mind that a washing with soap and water does not destroy microorganisms. When the assistant scrubs her hands, she may make them clean but not sterile. If a scalpel is picked up by an unsterile hand, microorganisms are transferred from hand to scalpel, contaminating it. The same thing takes place when unsterile hands touch the sponge jar, the applicators, the hypo tray, etc. Although this may sound like much ado about nothing, it could be a matter of life or death for someone.

What to do about it? Sterilization in boiling, distilled water is adequate for most things, though of course it isn't advised for hands. And I mean boiling for 20 minutes after the water starts to boil, starting with a clean sterilizer and with water that has been changed at least every third day—or oftener, depending on the amount of sterilizing. All blunt instruments and glassware should be boiled, after each article has been scrubbed with a good brush and a soap or detergent solution.

Cold-tray sterilizing is for the sharp instruments, usually in a prepared solution of the doctor's choice.

After rubber goods have been thoroughly washed, they can be placed in a 1:1,000 Zephiran Chloride solution. Thanks to research and progress, however, very few medical assistants have the task of washing and sterilizing rubber gloves. The new disposable ones have taken over.

Though there are disposable syringes, many doctors still use the glass ones together with disposable needles. If you still have the task of sterilizing such glassware, it is essential for you to remember that rinsing the barrel after an administration of a medication is not enough. Rinsing will not remove all of the medication from the inner surface. Therefore it is wise always to rinse the separated pieces in cold water, and then to place them in a cleaning solution and allow them to soak. The inside and outside of the barrel must then be scrubbed, with particular attention to the hub. That hub can collect minute particles which can go unnoticed, and though you have subsequently sterilized the instrument, what an unnerving situation it is, when you have prepared the syringe for the next patient, to find a small black particle floating within the intended medication! This will not happen if you have exercised proper care.

Autoclaving, one of the ways of achieving thorough sterilization, employs steam under pressure. Boiling water is at 212°F., not hot enough to kill all pathogenic microorganisms, but in steam at 250°F. and 15 p.s.i., all microorganisms are destroyed. This procedure is applicable to dressings, towels, and properly-wrapped glassware. After two weeks or longer, a stored, unused packet should be re-autoclaved. Thereafter it is not necessary to repack; just redate. Any time an autoclaved packet becomes moist, it must be re-autoclaved.

Man has not achieved total victory in his war upon microorganisms, and perhaps he never will. Until and unless he does, the medical assistant has a job to do—a job that calls for "the best to pass the test."

—Marian Little

THE DOCTOR'S BUSINESS



Why an Office Manual?

LARRY E. LEAVERTON
Des Moines

One of the common problems physicians face is the turmoil caused by the departure of a key employee. The confusion and the time expended in training a replacement and the necessity of following up her duties and responsibilities can be significant and costly.

Also, the trend to larger offices both in numbers of physicians and staff personnel, the employee turnover, illnesses, vacations and employee retirements suggest that certain routines, policies and procedures be put in writing for ready reference.

It has been our experience with many partnerships and groups that at a partnership meeting, an agreement will be reached on a personnel policy, or on a change in an office routine or policy, but that it is not recorded for future reference nor followed up to completion.

In the case of the solo practitioner who has only two or three employees, the lines of communication are shorter and there usually is one key person who has all policies and routines committed to memory. But what if she leaves or is replaced?

Too often a new employee has no one and nothing to turn to for answers to her questions. Delegating her training to the departing employee whom she is to replace is in many cases not too effective or wise.

If you have agreed that you need an office manual where do you begin? Much of the information you are going to need is already present in some form, or in the knowledge that you and your employees have accumulated in your minds but have neglected to set down in classified form. Make a list of every routine or policy already in effect. If your office has staff meetings, the notes or minutes of those sessions will disclose some items of policy that you have overlooked. You don't need a stock form or index to follow. As with other factors in the management of a practice, it must be tailored to your specific needs.

A suggested index of items to include would be:

- Duties and responsibilities of people currently holding the various job classifications in your office. Your present employees could start this list.
- Samples of the forms to be utilized, and instructions as to their use.
- Current schedule of fees—standard and special.
- Policy on handling the telephone—calls that you want to take, and calls that should be intercepted.
- The handling of emergencies.
- Receiving and dismissing patients.
- The handling of your appointments—list of the approximate times to allot to different procedures.
- A list of your desires regarding the personal appearance, grooming and dress of your employees.
- Policies regarding office hours, time off, sick leave, vacations. Note—these will be in your statement of personnel policy, but they should be also included in your office manual for reference.
- Policy on professional courtesy.
- A sample of your letterhead, with the style of letter you prefer.
- Instructions about working with outside consultants or advisors—management consultants, insurance agents, attorneys, accountants, collection agencies.
- The handling of callers—salesmen, drug detail men, solicitors, friends and family.
- How to order supplies—sources, quantities.
- Policy on billing and collection follow-up.
- Repair of equipment.
- Samples of insurance and other third-party-payment forms, and instructions on their use.

The above list is not all-inclusive, but can be used as a guide.

When your office manual has been completed, use it! Some employees think it is easier to ask questions than to look up the answers. Be sure they are familiar with the content of the manual. It can save your valuable time, and simplify your job of training and retraining personnel.

Finally, keep the manual up to date.

Mr. Leaverton has been associated with Professional Management Midwest since 1949. He is a partner in the firm, and is director of its Research and Development Department.

STATE DEPARTMENT OF HEALTH



JAMES F. SPEERS, M.D., M.P.H., COMMISSIONER

Iowa's Communicable-Disease Outlook

With immunization, we made great inroads on **measles** during the past year. We had only 165 reported cases for the whole year. This continued the decline begun the year before, and the drop was significant—from an average of 5,000+ cases in past average years. In epidemic years we used to have 12,000+ cases, and in 1935 there were 21,000+.

On the other hand, **mumps** got out of hand this past year. It was the biggest year for that disease in the past 28 years! By year's end 12,539 cases had been reported. In 1967 there were 7,669. The two-year total of more than 20,000 cases should just about have exhausted the supply of susceptibles, and we look for a drop in 1969. Live-virus mumps vaccine was first released in January, 1968. The experts have widened their recommendation for its use to include all children over one year of age. An intensive use of the vaccine to immunize young children certainly seems indicated for the coming year. By this means, the number of susceptibles can be kept permanently low, and there should be a spectacular drop in the number of mumps cases from now on.

If our records provide a good enough crystal ball, we can predict a rise in the incidence of **infectious hepatitis** during 1969. Past years of high incidence have been 1954 and 1961. If the seven- or eight-year interval between highs is maintained, 1969 is a good candidate for a peak. Unfortunately there is no immunization against this disease. Good environmental sanitation, pure water, safe sewage disposal and excellent personal hygiene—especially habitual hand-washing after using the toilet and frequent hand-washings at other times—are the best preventives. Let's all hammer this message home in an effort to prevent the above prediction from realization.

We closed 1968 with 118 new active cases of **tuberculosis.** That number is lower than the 160 cases that we had in 1967. In general, the disease has followed a downward trend for a considerable number of years. Iowa has the lowest new-case rate in the United States, but tuberculosis is still the biggest killer of all of the communicable diseases! Therefore we must keep our guard up, and do all we can to keep this disease from attacking school children, our citizens of the future.

Gonorrhea topped out at 3,991 cases for the year, an increase of 563 over 1967. That was the eighth consecutive increase. There is a good treatment for the disease, and we must make a greater effort to get the victim treated as quickly after infection as possible—before he can pass the disease on to someone else. Knowledge of the symptoms is important, so that the victim may know when to seek examination and treatment. The shame of venereal disease should attach to negligence in seeking prompt treatment!

Cases of **syphilis,** the really serious venereal disease, continued declining in 1968, but only a little.

Mumps Vaccine

The Public Health Service Advisory Committee on Immunization Practices meeting on October 9, 1968, issued the following recommendation on use of attenuated mumps virus vaccine in public health and preventive medical programs, a revision of the initial recommendation which appeared in the MMWR, *Vol 16, No. 51, December 23, 1967.*

Mumps, one of the common communicable diseases, is observed with greatest frequency in young school-age children. However, approximately 15 per cent of reported cases occur after the onset of puberty.

Overt evidence of central nervous system disease with sequelae is rare in mumps, although meningeal involvement appears to be common. Orchitis has been reported in up to 20 per cent of clinical cases occurring in post-pubertal males. Symptomatic involvement of other glands and organs is observed less frequently. Nerve deafness is a very rare, but serious, complication of mumps.

All naturally-acquired mumps infections, including the estimated 30 per cent which are subclinical, confer durable immunity.

LIVE MUMPS VACCINE*

Live mumps vaccine is prepared in chick embryo cell culture. Following administration, it produces an inapparent, non-communicable infection.

* Official name: Mumps virus vaccine, live.

Since its introduction approximately one year ago, mumps vaccine has been given to more than a million persons without report of significant side reactions clearly attributable to vaccination.

More than 95 per cent of susceptible vaccinees develop detectable antibodies after vaccination. Although titers are lower than those induced by natural infection, the pattern of antibody persistence parallels that seen following clinical mumps. The duration of vaccine-induced immunity is unknown, but three-year observations show continuing protection against natural infections and, in two small groups of children, antibody levels which are persisting without decline.

RECOMMENDATIONS FOR VACCINE USE

Live mumps vaccine may be used at any age from 12 months. It should not be administered to children less than 12 months old because of a possible persistence of interfering maternal antibody. The vaccine is of particular value in children approaching puberty, in adolescents, and in adults, especially males, who have not had mumps parotitis, either unilateral or bilateral.†

Since the Committee's initial statement on live, attenuated mumps vaccine in 1967, further experience with the vaccine has been accumulated. In view of evidence showing continued vaccine efficacy and safety, the Committee has modified its recommendation for limited vaccination of young children, and now suggests that consideration be given to immunizing susceptible children over one year of age. The Committee reaffirms its position, however, that mumps vaccination programs should not be allowed to take priority over essential ongoing health activities.

Vaccine Dose:

A single dose of vaccine should be administered subcutaneously in the volume specified by the manufacturer.

Prevention of Mumps Following Exposure:

It is not known whether live mumps vaccine will provide protection when administered after exposure. There is, however, no contraindication to its use at that time.‡

Precautions in Using Live Mumps Vaccine:

Severe Febrile Illnesses. Vaccination should be postponed until the patient has completely recovered.

Marked Hypersensitivity to Vaccine Components. Mumps vaccine is produced in chick embryo cell culture, and should not be given to persons hypersensitive to ingested egg proteins. Also, the vaccine contains small amounts of neomycin, so it should not be given to individuals known to be sensitive to this antibiotic.

Leukemia, Lymphomas, and Other Generalized Malignancies. Theoretically, attenuated mumps virus infection may be potentiated by other severe underlying diseases, such as lymphomas and generalized malignancies.

Altered Resistance from Therapy. Steroids, alkylating drugs, antimetabolites, and radiation may predispose to untoward complications as a result of altered resistance.

Pregnancy. On theoretical grounds, it is reasonable to avoid using the live mumps vaccine during pregnancy.

Simultaneous Administration of Live Mumps Vaccine with Other Antigens:

For an adequate evaluation of the live mumps vaccine, its simultaneous administration with other vaccines should be deferred until results of controlled clinical investigations are available. Until then it is recommended that mumps vaccination be separated from other immunization procedures by about one month, whenever possible.

CONTINUED SURVEILLANCE

Careful surveillance of mumps is important. There is need to improve the reporting of mumps cases and their complications, to demonstrate continuing vaccine effectiveness, and to document patterns of vaccine use.

† The mumps skin test with currently available antigens is an unreliable indicator of immunity.

‡ Inactivated mumps vaccine and mumps hyperimmune globulin are of questionable effectiveness under these circumstances.

Measles in 1968

From January 1 through November 17, 1968, only 104 cases of rubeola (measles) were reported from the whole State of Iowa. During the first two weeks of November, eight cases of the disease were reported from two schools in suburban Council Bluffs. The epidemiologic follow-up of measles cases in Iowa has been very thorough during the past year, as part of an intensive effort to eliminate the disease. On investigation of the Pottawattamie County cases, additional cases were found either as secondary cases in silbings or in the school populations. Almost all the initial group of patients lived in a mobile-home settlement where there was considerable fraternization among the children. Other cases were found in a relatively new residential area that was more or less self-contained around its own shopping center and plaza.

The Pottawattamie County Medical Society was notified of this increased incidence. The Society long has sponsored a comprehensive monthly immunization clinic, and has always been extremely public spirited. Immediate acceptance of a county-wide elimination program was forthcoming. The State Department of Health collaborated by obtaining the services of two EIS officers to provide backup medical supervision of immunization

sites. Extensive publicity was obtained through newspapers, radio and TV stations, by handouts distributed at supermarkets and by handbills sent home with school children. On December 12, immunizations were given to all of the susceptibles who came to four sites. Children from the other 22 elementary schools in the city were bussed to the two central schools where immunizations were being administered by jet injector from 9:30 a.m. until 7:00 p.m. A total of 6,124 children between one and 15 years of age were immunized. Protection was thus provided for an estimated 99 per cent of the children within those ages.

Upon compilation of all incidence data from Pottawattamie County, it was found that a total of 54 cases of measles had occurred in that county between September and December, 1968. Two cases in eastern Iowa have been traced to contacts with visiting Pottawattamie County children. A number of cases also were reported in Omaha during November and December, 1968.

Film Badge Services for X-Ray Personnel Protection

The film badge is widely used to assess occupational exposures to ionizing radiation. Several firms specialize in providing film badge services to subscribers. These include providing badges, developing and reading the films, and submitting written reports of the exposure levels noted.

A film badge reading is advantageous in that it represents the judgment of an independent agency. The maintenance of a file of film badge records relating to radiation exposures of personnel can provide a valuable reference in the event of injury alleged to have resulted from exposures to radiation.

The accuracy and the reliability of radiation measurements by film badge services have been matters of interest and concern. With the support of the U. S. Public Health Service, the National Sanitation Foundation at Ann Arbor, Michigan, has developed evaluation procedures for film badge services, and has issued NSF Standard No. 16 describing these procedures. The National Sanitation Foundation also has established a program for evaluating film badge services on a recurrent basis, and for awarding its seal of approval to the services which demonstrate performance within the control limits specified in the standard.

Lists of film badge services approved under the provisions of NSF Standard No. 16 are issued at intervals. The 1968 list of approved film badge services includes the following commercial firms:

Eberline Instrument Corporation
P. O. Box 2108
Santa Fe, New Mexico 87501

Gardray Film Badge Service
P. O. Box 117
Burlington, Massachusetts 01803

General Nuclear, Inc.
845 University Avenue
Berkeley, California 94710

R. S. Landauer, Jr., & Company
3920 216th Street
Matteson, Illinois 60443

Nuclear-Chicago Corporation
P. O. Box 367, Oakton St. Sta.
Des Plaines, Illinois 60018

Nucleonic Corporation of America
810 Williams Avenue
Brooklyn, New York 11207

Radiation Detection Company
385 Logue Avenue
Mountain View, California 94042

Tracerlab
1601 Trapelo Road
Waltham, Massachusetts 02154

Do Not Neglect the Pap Smear!

The Papanicolaou smear-stain technique provides an effective method for the early diagnosis of cervical cancer. It is possible not only to diagnose invasive cervical cancer at an earlier stage, but more important by far is that the Pap smear can discover cervical cancer in the preinvasive stage as carcinoma in situ. This latter lesion is 100 per cent curable, and it is in this area that maximal effort must be expended. However the problem is not solved simply by stating that a method is available. It is estimated that 75 per cent of women in the United States over the age of 20 have never had gynecologic Papanicolaou-smear screening. This group of women must be reached for screening if deaths from cervical cancer are to be reduced to a minimum.

It is imperative that each physician who treats female patients recognize the fact that carcinoma in situ of the cervix is an asymptomatic disease. Therefore this lesion is most likely to be discovered by routine examination of the asymptomatic patient. It is likewise essential that repeat Papanicolaou smears be taken at least annually on all women who have previously had such smears, and that this testing continue for the remainders of their lives.

The busy physician may wish to avoid becoming involved in this type of examination. However there are excellent examples where extremely busy men, not gynecologists, performed pelvic examinations and Papanicolaou smears, and thereby discovered asymptomatic lesions of the female genital tract. One of these was I. S. Ravdin, M.D., professor emeritus of surgery at the University of Pennsylvania School of Medicine. At one of the busiest moments of his career Dr. Ravdin took time to do a pelvic examination and Pap smear on an asymptomatic patient and uncovered a corcinoma in situ of the cervix. Another example is that of Eugene P. Pendergrass, M.D., professor

emeritus of radiology at the same institution, who while seeing a patient for follow-up for a tumor of the tongue, did a routine pelvic examination and discovered a primary vaginal cancer.

In Amherst, Nova Scotia, Donald C. Brown, M.D., a general practitioner, included in his examination of all female patients the Papanicolaou smear. Dr. Brown uncovered 29 cervical cancers in 2,380 patients during eight years. The important feature in this group was that only three of these were invasive cancers, and 26 were non-invasive.

There are several ways in which the screening of patients for cervical cancer might be improved. The first is the insistence by every practicing physician that each of his female patients have a Pap smear at least once a year. The second is for hospitals to establish the routine taking of a Papanicolaou smears on all female admissions. The Papanicolaou smear should be as routine as chest x-rays and blood counts are at the present time. —From an editorial in PENNSYLVANIA MEDICINE, January, 1969

Guidelines Regarding Competitive Sports for Children

The American Academy of Pediatrics (AAP) has issued some guidelines to govern the participation of elementary school children (boys and girls 13 years of age and younger) in competitive athletics.

The guidelines, prepared as a joint statement by the AAP, the AMA Committee on the Medical Aspects of Sports, the American Association for Health, Physical Education and Recreation, and the Society of State Directors of Health, Physical Education and Recreation, stressed the positive aspects of competitive athletics for school children and the undesirable corollaries to organized competitive athletics to which they should not be subjected. The latter include excessive publicity, pep squads, commercial promotion, victory celebrations, elaborate recognition ceremonies, paid admissions, inappropriate spectator behavior, high-pressure public contests and other forms of exploitation.

The AAP, in its statement, urges that local decisions about athletic programs for children of elementary-school age should consider (1) proper physical conditioning, (2) conduct of the sport to include competent teaching and supervision, appropriate equipment and facilities, and modifications of rules, (3) careful grouping according to sex, weight, size, skill and physical maturity, where indicated, (4) good protective equipment, properly fitted, (5) well-maintained facilities suitable for the sport, (6) proper delineation of spheres of authority and responsibility for school administration, family, sponsor, physician, coach and athlete, (7) adequate medical care, (8) salient educational and recreational considerations (including daily physical education instruction for all children, under the supervision of certificated physical-education teachers; opportunities for every child in the upper elementary grades to participate in an organized intramural athletic program, and assurance that the athletic program does not curtail the time or budget of the normal school program).

Monthly Report for Month of December, 1968

Diseases	Dec. 1968	Nov. 1968	Dec. 1967	Most Cases Reported From These Counties
Aseptic meningitis	2	0	1	Echo 9: Webster; Echo 30: Polk,
Brucellosis	1	4	6	Woodbury
Chickenpox	681	727	825	Des Moines, Dubuque, Polk
Diphtheria	0	0	0	
Encephalitis	4	2	0	Echo 25: Sioux; Mumps: Johnson; unspecified: Muscatine, Story
Food intoxication	0	0	0	
Gonorrhea	372	415	351	Urban counties
Histoplasmosis	3	4	3	Black Hawk, Cerro Gordo, Linn
Infectious hepatitis	37	39	44	Scattered
Influenza (confirmed*)	141 (*51)	1	657	Buena Vista, Calhoun, Clay
Malaria	0	1	6	
Measles	57	4	52	Carroll, Johnson, Pottawattamie
Meningitis, H. influenzal	1	1	0	Lee
Meningitis, meningococcal	3	2	3	Johnson, Jones, Linn
Meningitis, type unspec.	3	3	1	Iowa, Pottawattamie, Shelby
Mumps	728	930	2122	Scattered
Poliomyelitis	0	0	0	
Rabies in animals	7	7	13	Buena Vista, Chickasaw, Hardin, Mitchell, Osceola, Palo Alto, Van Buren
Salmonellosis	15	23	9	Appanoose, Johnson, Marshall, Mills, Polk, Warren
Scarlet fever	508	538	662	Scattered
Shigellosis	5	6	13	Linn, Mills, Polk, Wright
Smallpox	0	0	0	
Syphilis	60	66	62	Urban counties
Tuberculosis	10	11	17	Dubuque, Muscatine, Polk, Wapello, Woodbury
Whooping cough	0	9	11	

Woman's Auxiliary News

Rostrum Ramblings

I have been thinking so much lately about medical information and how hungry people are for it. They avidly read medical columns in newspapers, they eagerly consume articles on medical subjects in magazines, and they consult freely with such experts on health matters as bartenders, beauty operators, barbers and partners at the bridge table. Such authorities are liberal with their advice and opinions, since they have no responsibility for the outcome. That such advice and opinions are of dubious quality does not seem to diminish people's desire for medical knowledge.

Since the public is so anxious to learn about matters affecting their health, it would seem that they should have medical information that is as authentic as possible. What better source than medical societies and their Auxiliaries? Several years ago, the Scott County Medical Society held a series of medical forums, during which physicians answered questions on a different subject each time. Hypertension, obesity, polio, cancer and diseases of women were among the matters presented, and all attracted packed houses. The forums were a lot of work, but the people's interest was an ample reward.

The interest in and need for authoritative medical information are perhaps even greater today, and the Auxiliary has a bright opportunity to present it. The AMA Woman's Auxiliary Health Education Service offers a series of Package Programs, timely and vital today. There are programs on Teenage Venereal Disease, Drugs, Alcoholism, Mental Health of Children, Immunization and several others. Each package contains instructions as to presentation, a fact sheet, an authoritative speech on the subject, question and answer sheets, and pamphlets for distribution. I hope most fervently that county Auxiliaries will offer this very real public service. (Here's an opportunity for MAL's too.)

How do you order a program? Here is a quotation from the AMA Auxiliary BULLETIN on the subject: "Consider which program your Auxiliary can profitably present this year, and check with your medical society and public health leaders to ascertain that there is a need to sponsor such a program in your community. Then order from: Woman's Auxiliary to the AMA, 535 North Dearborn St., Chicago, Illinois 60610. Give the title of the program, the name of your Auxiliary and the address of the person to whom the package program should be sent. Only one package program on a particular subject per Auxiliary, please." Or you may have the loan of a copy for your inspection if you will write to me: Mrs. James F. Bishop, 212 Hillcrest, Davenport, Iowa 52803. 52803.

Oh, incidentally, have a Happy Valentine's Day with a full heart.

—LENOR S. BISHOP (MRS. JAMES)
President

A New Package Program "The Use or Abuse of Alcohol"

An excellent package program is now complete and ready for examination and/or use. This program is aimed at educating not preaching. On the "Question and Answer Sheet" you will find such questions as:

1. Can you tell if a person is drunk by observation of his behavior or by physical examination?
2. Can you sober up quickly by drinking black coffee and dousing your head with cold water?
3. At what grade level should alcohol education be presented in school?

It is interesting to answer the questions before the program and check the answers after the program. If you think you know the answers, you are in for a great surprise. Why not present this program to your group and your community? You may have a copy for your inspection by writing to either Mrs. Olin Elliott, Community Services Chairman, 4010 Welker Avenue, Des Moines, Iowa 50321; Mrs. M. D. Hayden, Mental Health Chairman, 1125 W. Willow Street, Cherokee, Iowa 51012; or the state President, Mrs. James F. Bishop.

Protest the Violence in Entertainment

In the near future you will receive a request to write a letter to your congressman, to television executives, and to motion picture directors complaining about the violence that is being communicated to our children through their various media. You may copy out the sample letter which will be enclosed, or you may compose an original letter for yourself. All of us agree that something drastic has to be done in order to reverse this trend that has besieged our country, and which has influenced and dislocated the thoughts of even sober-thinking Americans. This is a very timely

thing, what with the assassinations and the parade of drug-addicts that is beginning to plague our nation.

Remember, your children's minds are at stake, so when you receive this request to write a letter or letters, please take a few minutes from your activity-filled days, and sit down and deposit some of that precious time in the bank of your children's future mental health.

Safety and Disaster-Preparedness Programs

There are many programs in this field available to county Auxiliaries. Each can be adapted for use in any community and by either a small or a large Auxiliary.

1. A guidebook for school pedestrian-safety programs has been developed. In such an undertaking the county Auxiliary would work with the local safety council, if there is one, with the superintendents of schools and with the PTA's to assure children safe routes to and from schools, stop or caution signs at major street crossings, etc.

2. Poisoning-prevention packets can be ordered from the nearest poison-information center. Protect your child against accidental poisoning!

3. GEMS (Good Emergency Mother Substitute) training has been successfully promoted by many Auxiliaries, and it is being especially emphasized this year. The National Safety Council's "Baby-Sitter Program Kit" (price $1.25 each) can be secured by writing to the Woman's Auxiliary to the AMA, 535 North Dearborn Street, Chicago 60610. There are many other books and films that will help with programs of this sort.

4. A Package Program is available to Auxiliaries that want to consider setting up a Block-Mother Plan. In this activity women volunteer to be in their homes a half-hour before and a half-hour after school each day to provide a safe haven for children in case they are threatened or set upon by larger youngsters or adults, or in case one of them is injured or becomes ill.

5. Another worthwhile program is that of arranging training sessions for ambulance personnel, policemen, firemen and other people who need as much instruction as they can get in the handling of medical emergencies. In setting up such a program it is necessary for the Auxiliary to work with the county medical society and individual physicians, as well as with the various emergency and paramedical groups. Remember that in all activities at the local level it is essential for the Auxiliary to seek clearance from the county medical society and, wherever appropriate, from civic agencies.

6. Finally, there is the Medical Self-Help Program, a 16-hour course (free) which it is hoped that one adult member of each family will take—particularly in areas where the family is susceptible to isolation by flood, snow and ice, or atomic radiation. It is not a substitute for professional medical care, but in circumstances that make a physician unavailable there should be someone at hand who can alleviate suffering and who has at least some idea about what *not* to do.

—MAY D. WEIS (MRS. HOWARD)
Safety and Disaster Preparedness Chairman

I am only one, but still I am one.
I cannot do everything, but still I can do something;
and because I cannot do everything,
I will not refuse to do the something I can do.

—EDWARD EVERETT HALE

What Can You Do?

Medicine is at a cruical period in history, and the fight for the individual rights of physicians as well as the excellence of medical care goes on. As Auxiliary members, we can help our husbands by showing the general public that medicine is united, and like all other wives interested in their husbands' careers, we will help in any way we can to serve people and to mold public opinion where the doctors are concerned. If you need any help recruiting new members or keeping your old ones, we shall be happy to assist you in any way we can. There is a "Membership Orientation Manual" available from National Auxiliary. It is a 40 page book and can be ordered. The price is $1. (Please enclose check.) Address the AMA Woman's Auxiliary, 535 N. Dearborn Street, Chicago, Illinois 60610.

Annual Reports

All state officers, state chairmen and county presidents, send your reports to your state president by March 1, 1969.

All Councilors send reports to the First Vice-President by February 15, 1969, and send duplicate copies to the State President.

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

President—Mrs. J. F. Bishop, 212 Hillcrest Avenue, Davenport 52803

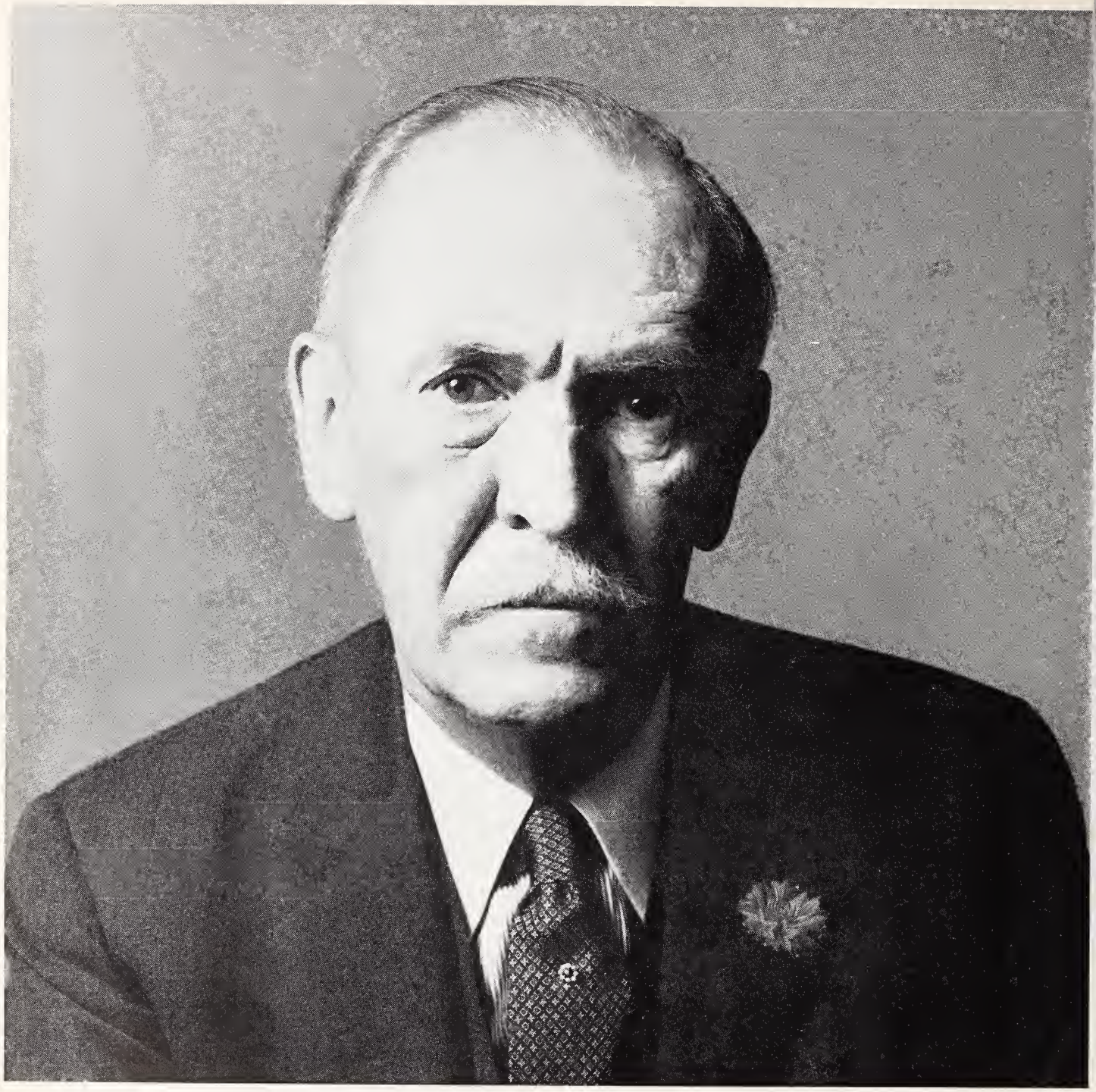
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Help the Needy!

This patient may appear to "have everything" but, like so many people getting along in years, he may well be in need—*medically*. Though there is no evidence of organic disease, he does have symptoms (fatigue, vague aches and pains, malaise) that may be indicative of—

a need to maintain anabolic balance... to counteract declining gonadal hormone secretion and forestall premature degenerative changes related to estrogen deficiency;

a need for mood elevation... to impart a gentle emotional uplift;

a need for nutritional supplementation... to compensate for the poor eating habits and subsequent dietary insufficiency of so many older people.

For these needs, consider MEDIATRIC for your next "needy" patient... medically.

MEDIATRIC provides specific agents to fulfill a need in the three areas:

1. **Gonadal steroids** [PREMARIN® (conjugated estrogens-equine), an orally active, natural estrogen, and methyltestosterone] for physiologic and metabolic benefits.

2. **Methamphetamine** to provide gentle elevation of mood.

3. **Nutritional supplements** specially selected to meet the requirements of the elderly individual.

Mediatric®

tablets • capsules • liquid

Steroid-nutritional compound

	Each MEDIATRIC® Tablet or Capsule contains:	Each 15 cc. (3 teaspoonfuls) of MEDIATRIC® Liquid contains:
Conjugated estrogens-equine (PREMARIN®)	0.25 mg.	0.25 mg.
Methyltestosterone	2.5 mg.	2.5 mg.
Methamphetamine HCl	1.0 mg.	1.0 mg.
Cyanocobalamin	2.5 mcg.	1.5 mcg.
Intrinsic factor concentrate	8.0 mg.	—
Thiamine HCl	—	5.0 mg.
Thiamine mononitrate	10.0 mg.	—
Riboflavin	5.0 mg.	—
Niacinamide	50.0 mg.	—
Pyridoxine HCl	3.0 mg.	—
Calcium pantothenate	20.0 mg.	—
Ferrous sulfate exsic.	30.0 mg.	—
Ascorbic acid	100.0 mg.	—
		Contains 15% alcohol† † Some Loss Unavoidable.

Contraindication: Carcinoma of the prostate, due to methyltestosterone component.

Warning: Some patients with pernicious anemia may not respond to treatment with the Tablets or Capsules, nor is cessation of response predictable. Periodic examinations and laboratory studies of pernicious anemia patients are essential and recommended.

Side Effects: In addition to withdrawal bleeding, breast tenderness or hirsutism may occur.

Suggested Dosages: *Male and female*—1 Tablet or Capsule, or 3 teaspoonfuls Liquid, daily or as required.

In the female: To avoid continuous stimulation of breast and uterus, cyclic therapy is recommended (3 week regimen with 1 week rest period—Withdrawal bleeding may occur during this 1 week rest period).
In the male: A careful check should be made on the status of the prostate gland when therapy is given for protracted intervals.

Supplied: No. 752—MEDIATRIC Tablets, in bottles of 100 and 1,000.
No. 252—MEDIATRIC Capsules, in bottles of 30, 100, and 1,000.
No. 910—MEDIATRIC Liquid, in bottles of 16 fluidounces.

AYERST LABORATORIES
New York, N.Y. 10017 • Montreal, Canada
6909

In Memoriam

FRED STERNAGEL, M.D. (1894-1968)

Dr. Fred Sternagel, friend, neighbor, physician, fishing and hunting partner for almost thirty-five years. In that length of time and in all the capacities of our many associations together, one really gets to know the whole man. A man whose philosophy of life never deviated from the Hippocratic Oath he took when he became a practicing physician.

In addition to his practice of medicine, he was an active citizen for progress in his hometown. He served in many capacities to better his community. Fred was truly a great humanitarian. No one will



ever know the many people he has helped financially, as well as physically, without remuneration. He was a family counselor to many and helped them solve their problems with his advice, when it was sought. He lived thoroughly his Rotary Pledge of "Service Above Self."

He neither sought nor desired public acclaim, but went his painstaking way of doing his work and hoped above all else that his efforts as a physician and a good citizen would be of help to someone else. I rarely heard him complain of his own physical discomfort or dissatisfaction with his community work if he was not satisfied with the outcome of his efforts. I only know that he would back off and renew his effort to change the things that could be changed and live with the things that he could not change.

So, farewell Good Friend. I will long remember you and your lifetime of good deeds and service to so many of us. You have given us all much to think upon by your actions as well as your deeds. In your Greatness you only wore the badges of Humility, Honesty and Service to all mankind.

—NORRIS F. CROSBY

Recent Discoveries Regarding "Hyperlipemia"

(Continued from page 142)

manufactured from cholesterol. Further studies are needed to evaluate the efficacy of clofibrate in patients with Types IV and V.

The results of these studies suggest that Atromid-S is effective against Type III hyperlipoproteinemia. In all cases the effect of the drug seems to be enhanced by concomitant use of a proper therapeutic diet. The drug is not without side effects, however, and thus the choice of therapeutic agent should depend upon the type of hyperlipoproteinemia. Moreover the NHI scientists suggest that physicians closely monitor and examine all patients on long-term Atromid-S therapy for abnormalities in muscle enzymes and evidence of muscle dysfunction and/or tenderness.

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Iowa Medical Society
Annual Meeting
April 27-30



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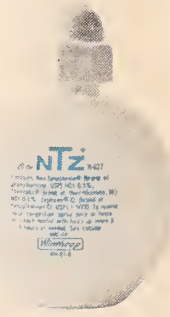
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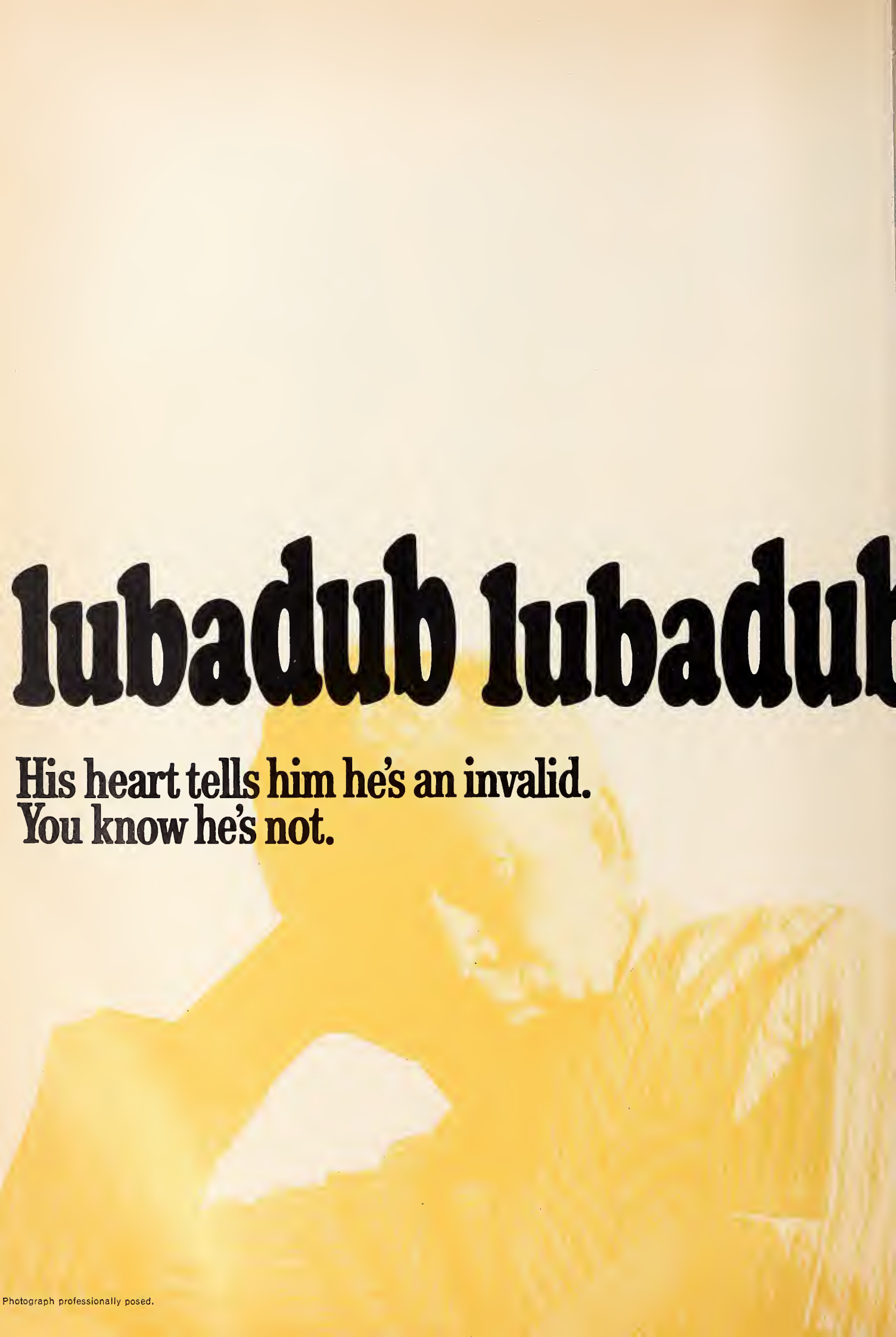
Zephiran® (brand of benzalkonium, as chloride, refined) 1:5000, antiseptic preservative and wetting agent to promote penetration and spread of the formula.



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Contraindications: History of sensitivity to meprobamate.

Important Precautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use has been reported to result in dependence or habituation in susceptible persons, as alcoholics, ex-addicts, and other severe psychoneurotics. After prolonged excessive dosage, reduce dosage gradually to avoid possibly severe withdrawal reactions. Abrupt discontinuance of excessive doses has sometimes resulted in epileptiform seizures.

Warn patients of possible reduced alcohol tolerance, with resultant slowing of reaction time and impairment of judgment and coordination.

Reduce dose if drowsiness, ataxia or visual disturbance occurs; if persistent, patients should not operate vehicles or dangerous machinery.

Side Effects include drowsiness, usually transient; if persistent and associated with ataxia, usually responds to dose reduction; occasionally concomitant CNS stimulants (amphetamine, mephentermine sulfate) are desirable. Allergic or idiosyncratic reactions are rare, but such reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Previous history of allergy may or may not be related to incidence of reactions. Mild reactions are characterized by itchy urticarial or erythematous maculopapular rash, generalized or confined to groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have been reported. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. If allergic reaction occurs, meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis,

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Anxiety is expected in the cardiovascular patient. A little may even be desirable.

But when anxiety is exaggerated . . . when it interferes with sleep . . . when it aggravates cardiovascular symptoms, your help may be needed.

Naturally, you'll want to reassure the patient.

And perhaps prescribe Equanil (meprobamate) as adjunctive therapy. It helps relieve anxiety and tension specifically, yet gently.

Almost 15 years' use has shown that Equanil is usually well tolerated as well as effective. Side effects are generally limited to transient drowsiness; serious, therapy-interrupting side effects are rare.

stomatitis and proctitis (1 case) and hyperthermia. Treat symptomatically as with epinephrine, antihistamine and possibly hydrocortisone. Aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia have occurred rarely, almost always in presence of known toxic agents. A few cases of leukopenia, usually transient, have been reported on continuous administration.

Meprobamate may sometimes precipitate grand mal attacks in patients susceptible to both grand and petit mal. Extremely large doses can produce rhythmic fast activity in the cortical pattern. Impairment of accommodation and visual acuity has been reported rarely. After excessive dosage for weeks or months, withdraw gradually (1 or 2 weeks) to avoid recurrence of pretreatment symptoms (insomnia, severe anxiety, anorexia). Abrupt discontinuance of excessive doses has sometimes resulted in vomiting, ataxia, tremors, muscle twitching and epileptiform seizures. Prescribe very cautiously and in small amounts for patients with suicidal tendencies. Suicidal attempts have resulted in coma, shock, vasomotor and respiratory collapse and anuria. Excessive doses have resulted in prompt sleep; reduction of blood pressure, pulse and respiratory rates to basal levels; and occasionally hyperventilation. Treat with immediate gastric lavage and appropriate symptomatic therapy. (CNS stimulants and pressor amines as indicated.) Doses above 2400 mg./day are not recommended.

Composition: Tablets, 200 mg. and 400 mg. meprobamate. Coated Tablets, WYSEALS® EQUANIL (meprobamate) 400 mg. (All tablets also available in REDIPAK® [strip pack], Wyeth.) Continuous-Release Capsules, EQUANIL L-A (meprobamate) 400 mg.

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A total daily dosage of 3 or 4 tablets will normally provide the continuous relief your patient expects. Use with caution in patients with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result.

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Novahistine®
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(Each tablet contains: phenylephrine hydrochloride, 40 mg.; chlorpheniramine maleate, 8 mg.; acetaminophen, 500 mg.)

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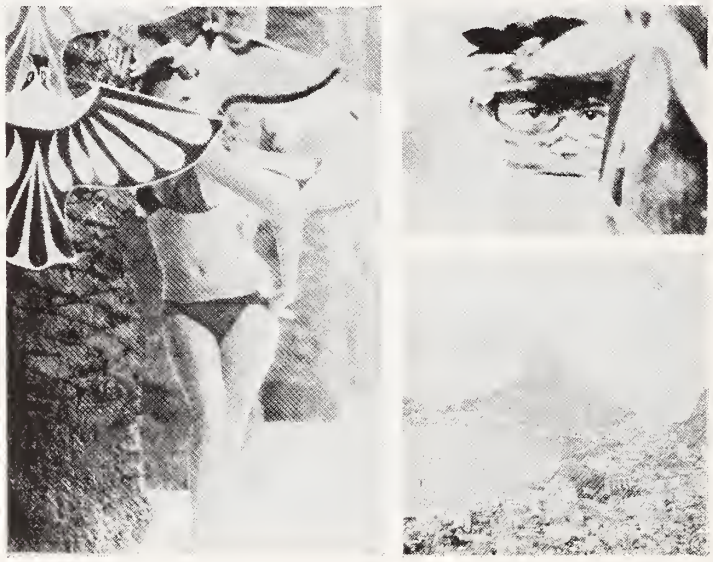
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Personals



Dr. John S. Koch is the newly chosen president-elect of the medical staff at Mercy Hospital, Cedar Rapids; **Dr. John Huston, Jr.,** is vice-president, and **Dr. Carl R. Aschoff** is secretary-treasurer.

The Fayette County Board of Supervisors has named **Dr. Larry H. Boeke,** of West Union, to succeed **Dr. Scott Linge,** of Fayette, as county medical examiner. The appointment is for two years.

Dr. John C. MacQueen, a professor of pediatrics and an associate dean at the U. of I. College of Medicine, addressed the Kiwanis Club of Washington, Iowa, in mid-December, on the subject of medical manpower.

Dr. E. A. Motto has been elected chief of staff of St. Luke's Hospital, Davenport, succeeding **Dr. A. B. Hendricks. Dr. C. B. Preacher** is vice-president, and **Dr. Robert Byrum** is secretary-treasurer.

Dr. George H. Scanlon, shortly before his death in early January, was given the papal medal Benemerenti. The extraordinary honor, rarely conferred, was given him in recognition of his years of service to his patients, to his community and to Mercy Hospital, Iowa City. The ceremony was conducted by the **Most Reverend Gerald O'Keefe,** bishop of Davenport.

Dr. Dale Harding, of Eagle Grove, the Wright County medical examiner, has been invited to discuss the Iowa Medical Examiner law at the international meeting of the Association of Coroners and Medical Examiners next August in Chicago. He is a member of the state committee that is to propose improvements in the Iowa law.

Two additional physicians have been added to the Medical Associates group in Clinton. **Dr. W. H. Griffith,** an internist who has practiced in the town for some time, joined on January 1. **Dr. H. K. Nickerson,** a pediatrician currently on duty with the U. S. Navy, will arrive on July 1. Though the clinic building is relatively new, it is being enlarged to accommodate as many as eight additional physicians.

According to an item in the December 17 issue of the OTTUMWA COURIER, **Dr. Sigmund F. Singer,** who has practiced radiology there for the past 26 years, formally retired on January 1. He has spent part of each of several recent years in Fort Lauderdale, Florida, and suffered and recovered from a heart attack there several months ago.

A disaster drill was conducted at the Jackson County Hospital, in Maquoketa, on December 12, when one "DOA" and 25 "injured" young people were brought there following the supposed collapse of the town's youth center building. The doctors of medicine who participated were **Drs. E. V. Andrew, Paul Brown** and **Gerhard Grundberg,** of Maquoketa.

Dr. Rafael A. Roure resigned his position on the medical staff of the Glenwood Hospital-School, on January 1, to join the Cogley Clinic, in Council Bluffs. A native of Puerto Rico, Dr. Roure received his B.S. and M.D. degrees from the University of Madrid, in Spain. He interned at Mercy Hospital, Des Moines, and subsequently, has served the Glenwood institution for 5½ years.

Dr. James P. Cahill was elected president of the medical staff of St. Joseph Mercy Hospital, Clinton, at a meeting held on December 10. **Dr. F. B. Rogers** was named vice-president.

At a meeting of the Webster County Nursing Service Board, in Fort Dodge on December 10, **Dr. J. H. Faust,** of Manson, showed slides and dis-

cussed his experiences during his three months' service at a mission hospital in Africa.

Dr. R. L. Zoutendam was named "man of the year" by the Sheldon Chamber of Commerce, in mid-December. He has been engaged in general practice there since 1960.

Dr. Donald D. Preuss and **Dr. James R. Scott** terminated their general practice in Grundy Center on December 24. Dr. Preuss will study anesthesiology at the University of Oregon Medical Center, in Portland, beginning July 1, after six months on the staff of Broadlawns Polk County Hospital, Des Moines. Dr. Scott will serve a residency in obstetrics and gynecology at the U. of I. College of Medicine. Both came to Grundy Center in 1965. **Dr. W. H. Verduyn,** of Reinbeck, has succeeded Dr. Preuss as medical examiner for Grundy County, and **Dr. Robert Patterson,** of Conrad, and **Dr. J. E. Rose,** of Grundy Center, have been appointed his assistants.

The guest speaker at the joint meeting of the Washington County Hospital staff and the Washington County Medical Society on December 5 was **Dr. Carl Larson,** of Iowa City. His topic was cardiopulmonary resuscitation.

Dr. and Mrs. J. Edward Kelly, of Spencer, were severely hurt in a highway accident near there on December 7 when a horse ran onto the highway in the path of their car. Dr. Kelly's injuries were facial, and Mrs. Kelly's included a concussion, bruises and shock.

At the annual dinner meeting of the medical staff of Mercy Hospital, Iowa City, on December 10, **Dr. C. R. Eicher** was elected to its presidency, succeeding **Dr. K. R. Cross,** who had held the post for two years.

On that same evening, as it happened, **Dr. W. S. Pheteplace** was elected to succeed **Dr. H. B. Weinberg** as president of the medical staff at Davenport Hospital, in Davenport. **Dr. Gordon Rock** was named vice-president, and **Dr. Robert J. Foley** was reelected secretary-treasurer.

On December 17 **Dr. O. L. Frank** was reelected chief-of-staff of the Jackson County Hospital, and **Dr. Paul Brown** was elected vice-chairman. Both of them practice in Maquoketa.

The 1969 officers of the medical staff at St. Ann's Hospital, Algona, are **Dr. John Schutter,** president; **Dr. D. L. Bray,** vice-president; and **Dr. Joseph Rooney,** secretary-treasurer.

On Christmas Day, **Dr. Duane E. Mitchell,** of Mt. Ayr, broke a leg when he fell in the driveway at his home.

Dr. Arthur Wise, who practices ophthalmology in Iowa City, was elected president of the Chamber of Commerce there, during a meeting held on December 26.

Dr. and Mrs. Tom D. Throckmorton, of Des Moines, were injured in a head-on collision near the airport there, on the evening of October 28. Mrs. Throckmorton's injuries were fatal. The accident occurred when the driver of the car approaching theirs failed to see the flashes of amber light marking a barricade where a dividing strip was being constructed between the northbound and southbound traffic lanes.

Dr. Howard Hartman is the newly installed president of the medical staff at Allen Memorial Hospital, Waterloo; **Dr. Maurice Wicklund** has been made president-elect and **Dr. Robert Hathaway** was chosen to be a member of the executive committee.

Dr. Verne L. Schlaser, of Des Moines, was a member of the Scientific Assembly Committee for the recent annual meeting of the American Academy of General Practice in Las Vegas.

Dr. J. B. Thielen, of Fonda, moved into his new office in mid-December.

Mr. Gordon Gammack's column in the New Year's Day issue of the DES MOINES TRIBUNE reported that **Dr. Stewart O. Olson,** a Des Moines physician, once played the clarinet in **Gene Krupa's** band.

Des Moines County has 25 "deputy" county medical examiners for 1969, and they are to serve in rotation. The Board of Supervisors were unable to persuade any one of the physicians in Burlington or its environs to undertake the responsibility alone.

Dr. Paul Cash, a psychiatrist, was one of the nominees for the 1968 DES MOINES TRIBUNE Community

Service Award. The couple who nominated him praised Dr. Cash for "helping without fanfare for many years hundreds of people who despair and are sick, lonely and lost."

The Buchanan County Board of Supervisors has named **Dr. L. John Flage,** of Independence, to the post of medical examiner.

At the January 8 meeting of the Johnson County Medical Society, held at the Veterans Hospital in Iowa City, **Dr. James H. Christi,** head of radiology at the U. of I. College of Medicine, spoke on "Radioisotope Scanning: Past, Present and Future."

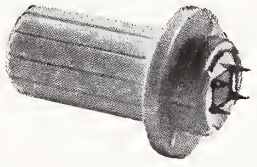
Dr. Donald McFarland, the medical examiner for Dubuque County, attributed the death of a 41-year-old Dyersville man, on New Year's Day, to complications of Hong Kong flu.

According to **Dr. W. A. Krehl,** a research professor of internal medicine and the director of the Iowa Regional Medical Program (heart disease, cancer and stroke), 12 counties in the northwest corner of Iowa have had extraordinarily few deaths from heart disease during the past 10 years. They are Lyon, Osceola, Dickinson, Emmet, Kossuth, Sioux, O'Brien, Clay, Palo Alto, Cherokee and Pocahontas. During the 1958-1967 period each of them ranked at least once among the 10 Iowa counties with the lowest cardiovascular death rates. He says he cannot explain the phenomenon. Buena Vista County, which belongs in the group geographically, failed to rank among the "low 10" in any of those years. Indeed in eight of the 10 years it had a cardiovascular death rate exceeding the average for the state.

Dr. J. L. Allen, a general practitioner, joined **Drs. R. M. Collison, Sidney A. Smith** and **N. L. Saxton** in Oskaloosa on January 13. Dr. Allen is a medical graduate of the University of Tennessee, and he served an internship at Holstrom Valley Community Hospital, Kingsport, Tennessee. He has engaged in private practice in Cleveland, Tennessee, and has served as plant physician for the Tennessee Eastman Company. He and Mrs. Allen have two sons and three daughters.

Dr. John H. Brinkman, an internist and endocrinologist, has joined the staff of the Park Clinic, in Mason City. He was born and brought up in Story County, Iowa; he received his medical degree from the University of Iowa in 1962, he in-

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terned at hospitals in Houston, and he served with the U. S. Army in Hawaii for two years. He has been receiving specialty training at hospitals associated with the University of Minnesota since 1965, and became board eligible in internal medicine last summer. He and Mrs. Brinkman have one son.

The medical staff of the Floyd County Memorial Hospital honored **Dr. Winston C. Baltzell,** at a dinner on January 2 at the Charles City Country Club. He is retiring after 30 years of practice. Asked what he proposed to do next, he replied, "The first thing I'm going to do is to get a good night's sleep." Among other things, he and Mrs. Baltzell plan to join the "People to People" planeload of Midwest doctors and their wives that will visit central European and Iron Curtain countries next summer.

Dr. Louis R. Greco, Jr., of Boone, has been appointed Boone County medical examiner for a two-year term. **Dr. E. E. Linder,** of Ogden, and **Dr. T. K. Leonard,** of Madrid, are his deputies.

Dr. Jo Ellen Maly Hoth opened a general practice in Burlington on January 6. She is a 1965 graduate of the U. of I. College of Medicine, she interned for two years at Broadlawns Polk County Hospital, Des Moines, and since last September she has been a staff physician at the USPHS Indian Hospital in Eagle Butte, South Dakota. **Mr. Hoth** is an attorney with the firm of Hirsch, Riepe, Wright, Link and Adams, in Burlington.

Dr. Fred B. Goslin, of Mason City, according to an item in the CEDAR RAPIDS GAZETTE for January 5, has bought a house in Cedar Rapids "for spring possession," and plans to practice surgery in that city. Dr. Goslin is a 1952 graduate of the U. of I. College of Medicine; he interned at Detroit Receiving Hospital; he took his specialty training in general and thoracic surgery during the seven years that he spent in the USAF, and he has practiced his specialty in Mason City for seven years.

At a meeting of the State Board of Regents, held in Des Moines on January 9, **James L. Spratt, Ph.D., M.D.,** was appointed to the post of associate dean of the U. of I. College of Medicine. He remains an associate professor of pharmacology. Dr. Spratt, a Markle Scholar in academic medicine, received his degrees at the University of Chicago, and has been a member of the U. of I. faculty since 1961.

Dr. John H. Brinkman joined the staff of the Park Clinic, in Mason City, on January 2, bringing the number of physicians there to 23. He was born in Ames, and graduated from high school in Colo. Then he went to Kemper Junior College, Boonville, Missouri, completed his undergraduate college work and took his basic medical training at the U. of I. College of Medicine, taking his M.D. in 1962, interned at Baylor University and Jefferson Davis Hospital, Houston, in 1962-1963, and then served with the Army in Hawaii during the following two years. Since then he has taken a residency in internal medicine and endocrinology in the Twin Cities. He and Mrs. Brinkman have one son.

Dr. Robert B. Kugel, who was director of the Child Development Clinic at the U. of I. College of Medicine a few years ago, has been named dean of the University of Nebraska College of Medicine, Omaha. He has headed the Department of Pediatrics there since October, 1966.

At the Christmas meeting of the Woodbury County Medical Society, held at the Sioux City Country Club on December 17, **Dr. Carroll A. Brown** assumed the presidency of the organization; **Dr. Phillip J. Monnig** was chosen as president-elect; **Dr. Carleton T. Helseth** is to continue as secretary; and **Dr. Paul A. Fee** was elected treasurer. The new trustees are **Dr. Leonard H. Boggs** and **Dr. William S. Thoman;** the delegates are **Dr. C. L. Beye, Dr. L. H. Boggs, Dr. P. M. Cmeyla** and **Dr. R. C. Larimer,** and the alternate delegates are **Dr. H. E. Rudersdorf, Dr. J. M. Krigsten, Dr. A. H. Kelly** and Dr. Helseth.

At the annual meeting of the Polk County Medical Society, held in the Hotel Fort Des Moines, in Des Moines, on January 15, **Mr. Jim Reed,** director of the Communications Division of the AMA, spoke on "Public Relations in These Changing Times."

In its election of officers for 1969, the Polk County Medical Society chose **Dr. Ralph E. Hines** as president-elect; **Dr. Robert W. Hoffman** as secretary-treasurer; **Drs. John W. Green, Jr.,** and **James H. Dickens** as trustees; **Dr. Dennis J. Walter** as councilor; and **Drs. Meredith A. Saunders, William R. Hornaday, Jr., Marvin H. Dubansky, Dennis J. Walter, Alfred N. Smith** and Dr. Green as delegates, to serve with a group who have unexpired terms. Another delegate post was to have been filled, but the Society's board will have to resolve a tie vote for it. The new president of the Polk County Medical Society is **Dr. Wallace Rindskopf.**

The program for "Medical Forum of the Air" broadcast over KDPS-TV, Des Moines, on January 6 undertook to answer the question "What's New in Coronary Heart Disease," and the speakers were **Drs. David H. Watkins, William H. Myerly** and **Charles H. Gutenkauf,** of Des Moines. On the evening of Monday, February 3, the topic will be "Chest Diseases—Cancer, Emphysema and Asthma," and the participants will include **Drs. Alexander Matthews, Paul From** and **Joel D. Teigland,** of Des Moines.

Dr. David Gordon, of Des Moines, addressed the January 14 meeting of the Life, Health and Accident Claim Association on the subject of Cardiac Rehabilitation.

Dr. Mary Croker, of Manchester, has been appointed medical examiner for Delaware County, succeeding **Dr. R. E. Clark,** also of Manchester.

The medical staff of Iowa Lutheran Hospital, Des Moines, recently presented a plaque to the Hospital as a part of the dedication of the Julius S. Weingart Pathology Laboratory. **Dr. Weingart** was chief of laboratory services there for many years.

Dr. Louis T. Palumbo, of Des Moines Veterans Administration Hospital, had a scientific exhibit on display at the AMA Clinical Meeting in Miami Beach, early in December. Entitled "The Pupillociliary Pathways: A New Anatomical Concept," it was based on a series of almost 100 transthoracic upper-dorsal sympathectomies in which complete and permanent denervation of the head, neck and upper extremities and heart was achieved without producing Horner's syndrome. Dr. Palumbo also served on the Hull Award Committee which judged the exhibits for special awards.

Dr. L. Dean Caraway, of Monticello, councilor for the IMS Seventh District, attended a preliminary meeting of representatives from Benton, Cedar, Delaware, Iowa, Johnson, Jones, Linn and Washington Counties, in Iowa City on January 14, regarding formation of a regional health-facilities planning council.

The guest speaker at the January 7 meeting of the Wapello County Medical Society was **Dr. Michael E. Yannone,** an associate professor of obstetrics and gynecology at the U. of I. College of Medicine. His topic was "Induction of Ovulation," and the place of the meeting was the Ottumwa Country Club.

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Dr. C. F. Watson, of Fairfield, has been reappointed Jefferson County medical examiner.

Dr. G. W. Bennett has been named to succeed **Dr. N. L. Saxton** as medical examiner for Mahaska County. The appointment is a two-year one, made by the County Board of Supervisors on the recommendation of the County Medical Society. Dr. Saxton has been the examiner for four years. Both men practice in Oskaloosa.

Dr. Robert E. Hodges, a professor of internal medicine at the U. of I. College of Medicine, will address the wives of the registrants at the Tri-State Swine Raisers Conference in Sioux City on February 6. His topic is "Cholesterol as It Relates to Health and the Foods We Eat."

Dr. Floyd Rolfs was honored as Parkersburg's man of the year, at a meeting of the Chamber of Commerce there, January 6. Besides practicing in the community for 38 years, he has been a school board member for many years and has provided leadership in various civic improvement projects.

Dr. James Bullard, of Decorah, has been reappointed medical examiner, and **Dr. Terry F. Dynes,** of Decorah, **Dr. Garfield Miller,** of Calmar, and **Dr. Ignatius Greene,** of Ossian, have been reappointed deputy medical examiners by the Winneshiek County Supervisors.

At the St. Joseph Hospital in Keokuk, **Dr. Sebastian Ambery** is the 1969 president of the medical staff; **Dr. B. J. Williamson** is the president-elect; and **Dr. J. A. Rapagnani** is the secretary.

The medical staff at the Ottumwa Hospital has re-elected **Dr. S. C. Bauserman,** of Agency, as its president, and **Dr. D. D. Emerson,** of Ottumwa, as its vice-president. **Dr. J. E. Rawls,** of Ottumwa, is its new secretary.

The Clinton County Medical Society and the Clinton County Bar Association held a luncheon meeting on January 23, at which there was discussion of medicolegal topics by a panel consisting of representatives from the two organizations. It was the first such meeting to be held in Clinton.

Dr. J. J. Shurts, of Eldora, has been appointed medical examiner for Hardin County. His deputies are **Dr. Gary Gray,** of Eldora, and **Dr. Herbert Gude,** of Iowa Falls.

At the January 8 meeting of the Black Hawk Association of Medical Assistants, held at Hotel Russell Lamson, Waterloo, **Dr. M. M. Wicklund** talked and showed slides of his trip to Greece.

Dr. F. Harold Entz, of Waterloo, was elected president of the Visiting Nursing Association at a noon meeting on January 9. **Dr. Albert Dolan** was reelected to the organization's board for a three-year term.

At its annual awards banquet, on January 23 at the Fort Des Moines Hotel, in Des Moines, the Committee on Employment of the Handicapped presented its physician-of-the-year award to **Dr. William D. deGravelles, Jr.,** chief of physical medicine at Younker Memorial Rehabilitation Center, Des Moines.

Dr. Arthur L. Sciortino succeeded **Dr. Duane Warden** as president of the Pottawattamie County Medical Society at that group's annual meeting in Council Bluffs on December 17. **Dr. James Knott** was made president-elect; **Dr. Lynn Leibel,** vice-president; **Dr. Jose Martinez,** secretary-treasurer; **Drs. F. S. Gonlubal** and **Robert Westfall,** executive council members; **Dr. H. Rassekh,** delegate; **Dr. W. Clark Giles,** alternate; and **Dr. E. O. Bean,** member of the board of censors.

The 1969 officers of the Johnson County Medical Society are **Dr. C. E. Schrock,** president; **Dr. George R. Zimmerman,** president-elect; **Dr. Robert D. Whinery,** vice-president; and Dr. Zimmerman, secretary-treasurer. The Johnson County delegates are **Drs. O. C. Beasley, T. T. Bozek, K. R. Cross, Charles Eicher, Mark Immergut, R. D. Liechty, Jack Moyers, A. S. Norris, C. E. Radcliffe, E. O. Theilen** and G. R. Zimmerman.

Newly-elected officers of the Jefferson County Medical Society are **Dr. James Dunlevy,** president; **Dr. Robert Ryan,** vice-president; and **Dr. William Baumann,** secretary. Those three will also serve as officers of the medical staff of the County Hospital.

Dr. Joseph L. Monahan, of Clinton, has succeeded **Dr. Wallace Ash,** of DeWitt, as president of the Clinton County Medical Society. **Dr. William R. Meyer** and **Dr. Juergen F. Holl,** both of Clinton, are the vice-president and the secretary-treasurer, respectively, **Dr. G. A. Chalian** and **Dr. G. W. Marme,** both of Clinton, are the delegates, and **Dr. Kermit R. Sorenson,** of Clinton, is the alternate. **Dr. Ross C. King** has been named to a three-year term on the board of censors.

For 1969 the Des Moines County Medical Society has **Dr. C. B. Nessa** as its president; **Dr. T. T. Mazur** as its president-elect; **Dr. J. J. McElwain** as its secretary; and **Dr. George R. Gudrum** as its treasurer. The executive committee consists of **Drs. W. C. Zabloudil, F. H. Coulson** and **W. C. Friday,** and the members of the board of censors are **Drs. H. B. Eastburn** and **Dr. R. J. Rettenmaier,** together with Dr. Zabloudil. The delegates are **Drs. J. F. Foss** and **F. G. Ober,** and the alternate delegates are **Drs. J. L. Saar** and **F. Roules.** Except for Dr. Roules, of Mediapolis, all of them practice in Burlington.

Dr. William R. Wessels was elected president of the Marshall County Medical Society on December 4. **Dr. John M. Graether** was made vice-president, and **Dr. Russell R. Widmer,** secretary-treasurer. **Drs. L. O. Goodman** and **William T. Shultz** were chosen as delegates to the Iowa Medical Society, and Dr. Wessels was made the alternate. The scientific program concerned emergency cardiopulmonary resuscitation.

At the November 21 meeting of the Dallas-Guthrie County Medical Society, in Adel, the following officers were elected for 1969: **Perry L. Weigel, M.D.,** VanMeter, president; **William A. Seidler, M.D.,** Jamaica, vice-president; and **Keith Chapler, M.D.,** Dexter, secretary-treasurer. The delegates will be **William A. Castles, M.D.,** Dallas Center, and **R. J. Peterson, M.D.,** Panora.

The 1969 officers of the Scott County Medical Society are **Dr. Erling Larson, Jr.,** president; **Dr. Ralph P. Lagoni,** president-elect; **Dr. W. D. Edgerton,** vice-president; **Dr. Kenneth H. McKay,** secretary; **Dr. J. F. Bishop,** assistant-secretary; and **Dr. D. A. Bovenmyer,** treasurer. The delegates are **Dr. John Collins, Dr. C. B. Preacher,** Dr. Lagoni and Dr. Bishop. Dr. Lagoni practices in Eldridge; all of the others practice in Davenport.

At the Lee County Medical Society's annual meeting, December 11, the following officers were elected: **Dr. G. H. Ashline,** Keokuk, president; **Dr. G. C. McGinnis,** Ft. Madison, vice-president; **Dr. R. L Kent,** Ft. Madison, secretary-treasurer; **Dr. L. C. Pumphrey,** Keokuk, and Dr. McGinnis, delegates; and **Dr H. B. Helling,** Ft. Madison, and Dr. Ambery, alternates.

The new officers of the Mahaska County Medical Society are **Dr. Loren Allaman,** president; **Dr. N. L. Saxton,** vice-presdent; **Dr. R. E. Phelps,** secretary; and **Dr. Lawrence J. Grahek,** treasurer. The delegate is **Dr. G. W. Bennett** and the alternate is **Dr. Kenneth M. Lemon.** Dr. Phelps practices at New Sharon, and all of the others in Oska-



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loosa. The group's annual meeting took place on December 10.

The newly-chosen officers of the Cass County Medical Society are **Dr. Einer M. Juel,** president; **Dr. M. T. Petersen,** vice-president; and **Dr. J. D. Weresh,** secretary-treasurer. Dr. Juel is to be the Society's delegate, and Dr. Petersen the alternate. All of them practice in Atlantic.

Deaths

Dr. Stephen A. O'Brien, Jr., 46, who had practiced since 1954 with the Medical Associates group in Dubuque, died of leukemia at University Hospitals, Iowa City, on December 19, after a short illness. He was a 1950 graduate of the U. of I. College of Medicine.

Dr. Douglas N. Gibson, 65, who practiced orthopedic surgery in Des Moines from 1929 until 1967, died at Iowa Methodist Hospital, there, on December 23, after a long illness. He received his M.D. degree at Washington University, St. Louis, and took his orthopedic residency at the University of Wisconsin.

Dr. Roy E. Crowder, 71, who practiced obstetrics and gynecology in Sioux City from 1922 until 1941, died at a hospital in San Diego on December 8. He left Sioux City to enter military service and located in San Diego when he left the Navy in 1958.

Dr. Frank G. Carlson, 90, an EENT specialist who practiced in Mason City for many years, died at a hospital there on December 6. He took his M.D. degree at the University of Iowa in 1903, did graduate work at Northwestern University, and worked at Hull House, in Chicago, before returning to Iowa. He was a general practitioner at Geneva before moving to Mason City. He was a Life Member of the Iowa Medical Society.

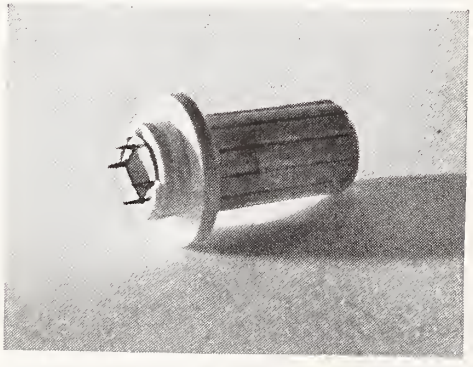
Dr. Henry A. Bender, 74, who recently retired after 42 years' practice in Waterloo and previous teaching at the medical school in Iowa City, died at the Lutheran Home, in Cedar Falls, on January 6. He was an EENT specialist.

Dr. George H. Scanlon, 76, an Iowa City surgeon and currently chairman of the State Board of Medical Examiners, died at his home on January 6. He was a past-president of the Iowa Medical Society and of Iowa Medical Service (Blue Shield). He instituted the loan program for medical students that has been the principal function of the Iowa Medical Foundation, and that institution was recently renamed the Scanlon Medical Foundation for that reason.

Dr. John W. Schwartz, 70, a Sioux City physician and surgeon for 45 years, died on January 8 after a brief illness. He was a medical graduate of the University of Nebraska, and he was a member of the American College of Surgeons. He served in both world wars, and following the second one he worked for a time in the employ of an oil company at its installation on the Persian Gulf. Failing health necessitated his retirement in 1967.

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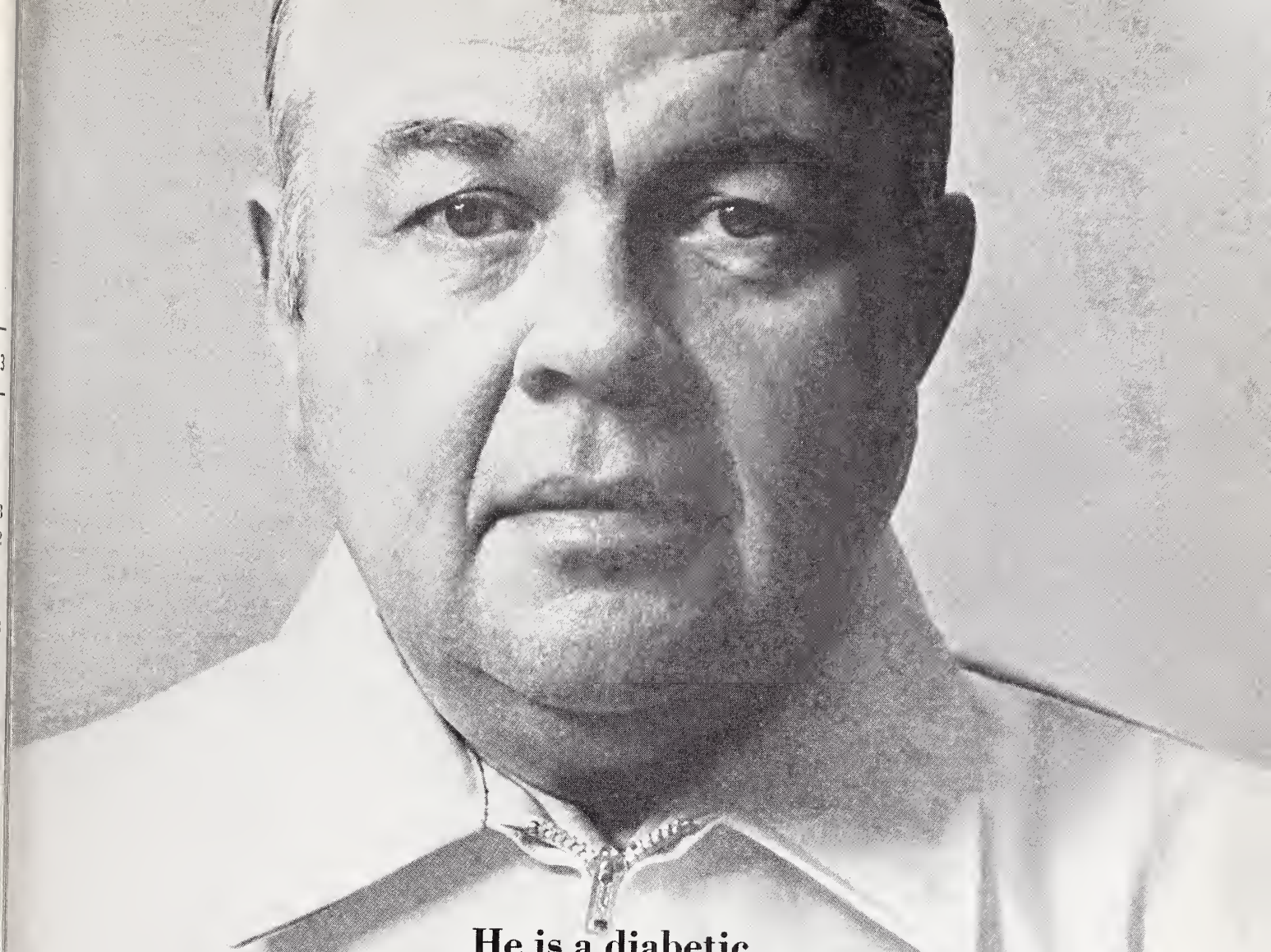
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He is a diabetic.
He is middle-aged.
When he needs an antibiotic he may be a candidate for

DECLOSTATIN® 300

Demethylchlortetracycline HCl 300 mg and Nystatin 500,000 units CAPSULE-SHAPED TABLETS Lederle

b.i.d.

To guard susceptible patients against intestinal monilial overgrowth during broad-spectrum therapy—the protection of nystatin is combined with demethylchlortetracycline in DECLOSTATIN.

For your susceptible candidates, prescribe DECLOSTATIN—the broad-spectrum therapy that prevents monilial overgrowth.

Effectiveness: Because its antibacterial component is DECLOMYCIN Demethylchlortetracycline, DECLOSTATIN should be equally or more effective therapeutically than other tetracyclines in infections caused by tetracycline-sensitive organisms. The antifungal component, Nystatin, protects against superinfection by antibiotic-resistant fungal overgrowth (particularly monilia) in the intestinal tract.

Contraindication: History of hypersensitivity to demethylchlortetracycline or nystatin.

Warning: In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated, and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort. Necessary subsequent courses of treatment with tetracyclines should be carefully observed.

Precautions: Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

Side Effects: Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes; a rare case of exfoliative dermatitis has been reported. Photosensitivity; onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose related. Transient increase in urinary output, sometimes accompanied by thirst (rare). Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth—dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Demethylchlortetracycline may form a stable calcium complex in any bone-forming tissue with no serious harmful effects reported thus far in humans.

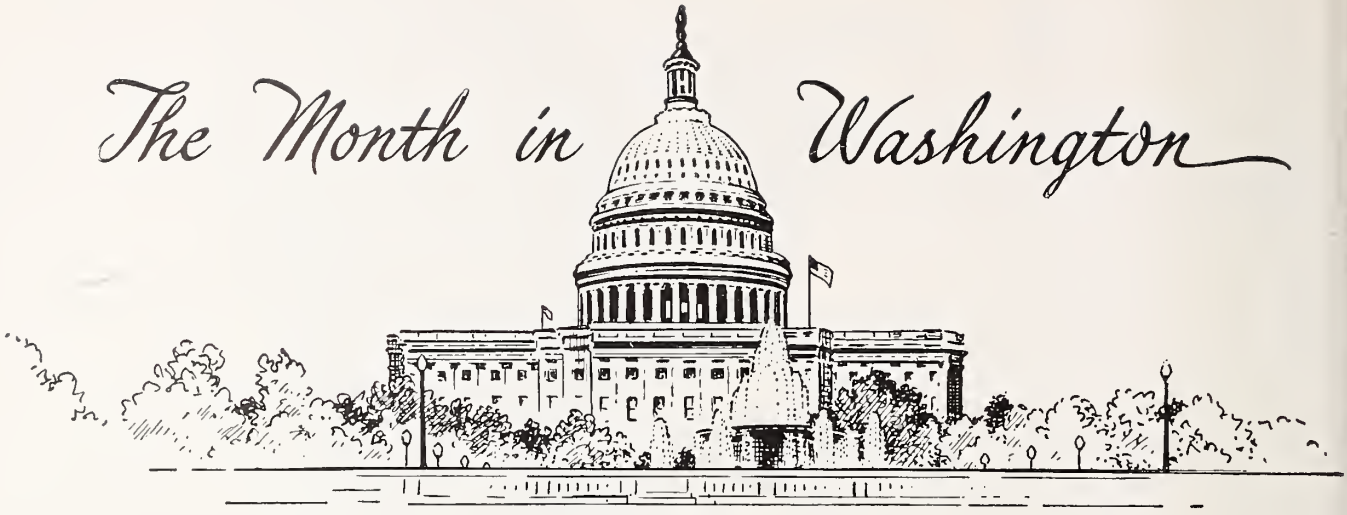
Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products. Treatment of streptococcal infections should continue for 10 days, even though symptoms have subsided.

Lederle

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344-8

The Month in Washington



Washington, D. C.—A Federal Communications Commission proposal to ban cigarette advertising on radio and television put the issue squarely before Congress again. In 1965, Congress outlawed any federal or state controls on cigarette ads as a provision of the legislation that made it mandatory for cigarette packages to carry the warning: "Caution: Cigarette Smoking May Be Hazardous to Your Health." Proponents of the ban on electronic advertising contend that the package warning doesn't have enough impact.

Even before the FCC announcement, some members of Congress were saying that the provision outlawing federal and state controls over cigarette advertising should be allowed to expire on June 3. However, congressional reaction to the FCC ruling was mixed.

The American Medical Association House of Delegates, at its meeting in Miami Beach last December, declined to approve a resolution condemning cigarette advertising on TV. Instead, it adopted a resolution urging AMA members to "play a major role against cigarette smoking by personal example and by advice regarding the health hazards of smoking." The resolution also made it Association policy that the AMA "discourage smoking by means of public pronouncements and educational programs" and "take a strong stand against smoking by every means at its command."

Anticipating censorship charges—and they came promptly from the tobacco and broadcasting industries and some members of Congress—the FCC said in announcing its proposal:

"We believe that in the case of such a threat to public health, the authority to act is really a duty to act. We stress again that our action is limited to the unique situation and product; that we are unaware of any other product commercials calling for such action, and expressly disclaim any intention to so proceed against other product commercials."

A nationwide increase in deaths from pneumonia was attributable to the Hong Kong flu epidemic, the federal government reported.

"Pneumonia-influenza deaths increased over what was expected normally over the time the flu epidemic was active," Public Health Service Surgeon General Dr. William H. Stewart said, adding that the deaths included ones from all kinds of pneumonia and that the increase was "almost universal across the country."

The National Communicable Disease Center in Atlanta said pneumonia-influenza deaths are one measure of the severity of a flu epidemic. Reports from 122 cities during the eight weeks ended February 1 showed 5,270 more pneumonia-influenza deaths than the number normally predictable during that period. The epidemic then was "on a downtrend," according to the CDC.

* * *

Robert H. Finch, the new Secretary of Health, Education and Welfare, is giving health-care costs a high priority. Even before he was sworn in as secretary, Finch made an unannounced call on Hon. Wilbur D. Mills (D., Ark.), chairman of the House Ways and Means Committee, which has jurisdiction over HEW's Medicare and Medicaid programs. Finch afterwards said his staff would confer with Mills' staff to consider legislation or regulations that could combat increased health-care costs. "His staff and my people are going into this to see what we can do about the skyrocketing costs—especially hospitalization, where 70 per cent of the costs are labor," Finch said.

The former California lieutenant governor said he was thinking about the pilot program in his native state—which he called a paramedical program—whereby long stays in the hospitals are shortened by putting people into intensive care centers. If hospital stays could be shortened, he said, "massive savings would result."

Representative Mills was reported as favoring broadened Medicare benefits or hospital care to cover disabled workers, who, by nature of their disabilities, receive Social Security payments but, because they are under 65, are ineligible for Medicare. He also was reported to be concerned over increases in hospital charges and doctors' fees.

Several members of Congress have expressed concern over increases in the federal costs of Medicare and Medicaid. The Johnson Administration's budget for fiscal 1970, starting next July 1, allots $6.9 billion, up $636 million, for Medicare and $3 billion, up $600 million, for Medicaid.

A bill, introduced by Sen. George Aiken (R., Vt.), with Senate Majority Leader Mike Mansfield (D., Mont.) and Sen. Winston Prouty (R., Vt.), as co-authors, would do away with the present "usual-and-customary-charge concept," place all physicians on assignment, and reimburse them in amounts equal to the average payment for the same service provided by the local Blue Shield. Among many other changes would be the elimination of deductibles and co-insurance.

The Labor Department reported that medical costs, including both hospitalization and physicians' fees, rose 7.3 per cent during the calendar year 1968.

Secretary Finch said the Nixon Administration's HEW budget requests would be about the same size as the $17.5 billion submitted by the Johnson Administration, but that there would be changes within the overall total. Estimated total federal spending in the health field will rise to $18.3 billion.

HEW said that national spending for health care, both government and private, continued to rise in fiscal 1968. The total for 1968 was $53.1 billion, of which $33.7 billion was private and $19.4 billion was government. This compared with $47.9 billion ($32.2 billion private and $15.7 government) for fiscal 1967. In fiscal 1960, it was $26.4 billion—$20 billion private and $6.4 billion government.

* * *

The Defense Department will call up 437 physicians, 23 osteopaths and 25 optometrists in 1969, in the lowest doctors' draft in seven years. The total of 485 medical men compares with 1,126 drafted in 1968; 2,329 in 1967; 2,596 in 1966; and 2,830 in 1965.

The stabilization of the buildup of forces associated with the Vietnam war and the large number of "volunteers" facilitated keeping the doctors' draft low, the Pentagon said. All of the physicians will go into the Army, but some of the osteopaths and optometrists will go into other services. None will go into uniform until July.

* * *

The National Research Council charged that most ambulances in the U. S. are not "providing emergency care to the critically injured." It cited a lack of equipment and supplies, and untrained attendants.

The Council said that "hearses and station wagons, commonly used as emergency vehicles," do not carry the necessary equipment or provide the space for equipment essential to carrying out modern resuscitative procedures either at the scene of an accident or during transportation." It said "action must be taken to develop and enforce nationwide standards for ambulance service," because accidental injuries are the leading cause of death during the first half of a person's life span.

"Only 10 states have statutes prescribing the equipment to be carried by an ambulance, and the federal guidelines for motor safety do not cover the special features necessary to the safe transport of the critically ill or injured," the Council reported.

The National Research Council is a subsidiary of the National Academy of Sciences, an organization created by a congressional charter in 1863.

Have You

Made Your Reservation?

Reservations are being accepted NOW at all Des Moines hotels and motels for physicians who plan to attend—

1969

Iowa Medical Society

Annual Meeting

April 27-30

Symbols in a life of psychic tension

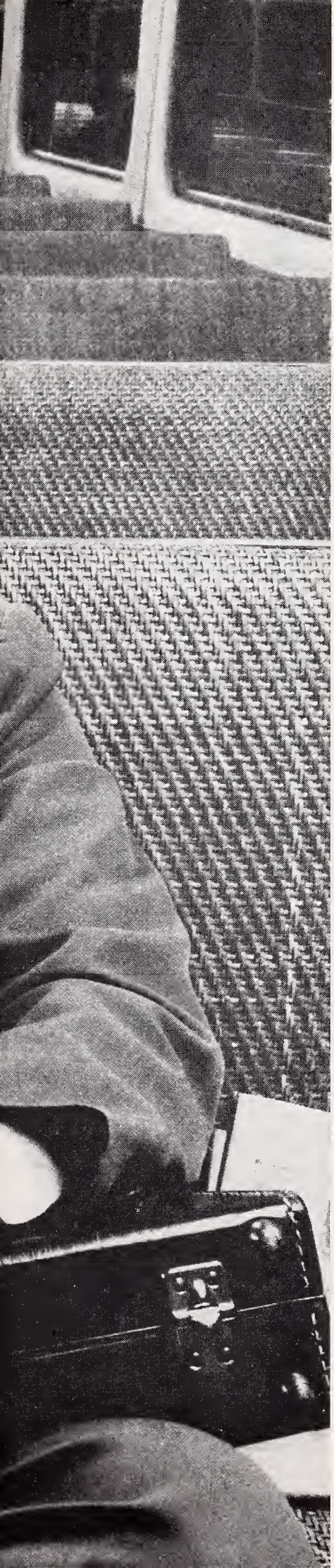
B.A.
cum laude

V.P.
at thirty-two

ECG
and complete examination normal (persistent palpitations)



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Rx

Valium® (diazepam) *t.i.d.* and *h.s.*

B.A. (*cum laude*)...V.P. (at thirty-two)...symbols that illuminate the quality of a life...the satisfactions of achievement, as well as its price...the pressures and stresses that can often create cardiac manifestations of psychic tension. For this kind of patient—with no demonstrable pathology—consider the singular benefits of Valium (diazepam).

With its pronounced calming action, Valium can relieve psychic tension promptly, attenuating its somatic signs and symptoms. Further, Valium is distinctly useful when somatic and depressive symptomatology (secondary to psychic tension) coexist. And Valium is generally well tolerated; in proper maintenance dosage, it seldom dulls the senses or interferes with functioning.

When psychic tension-related insomnia appears, an *h.s.* dose added to the *t.i.d.* schedule helps promote sleep.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms have occurred following abrupt discontinuance. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation, have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Valium® (diazepam)

2-mg, 5-mg, 10-mg tablets *t.i.d.* or *q.i.d.*

to help relieve psychic tension
and its somatic symptoms

COMING MEETINGS

IN STATE

March 30	**Second Annual Seminar, Cedar Rapids Child Evaluation Clinic: Cerebral Dysfunction,** Roosevelt Hotel, Cedar Rapids.
April 4-5	**Symposium on Management of Facial Deformities,** U. of I. College of Medicine, Iowa City.
April 10-11	**Thirteenth Annual Pediatric Conference.** Blank Memorial Hospital, Des Moines.
April 27-30	**Annual Meeting, Iowa Medical Society,** Des Moines.

CONTINENTAL U. S.

Mar. 2-5	**Chicago Medical Society,** Palmer House, Chicago.
Mar. 3-6	**Physiological Concepts of Clinical Disease sponsored by American College of Physicians,** University of Texas Southwestern Medical School, Dallas.
Mar. 3-7	**Symposium on Arthritis and Related Disorders,** New York University Medical Center, New York.
Mar. 3-7	**The Doctor: His Patient and the Illness, sponsored by the American College of Physicians,** University of Cincinnati College of Medicine, Cincinnati.
Mar. 3-7	**Postgraduate Course on Histopathology,** New York University Post-Graduate Medical School, New York.
Mar. 5-6	**Advances in Hematology,** University of Nebraska Medical Center, Omaha.
Mar. 9-11	**American Association of Pathologists and Bacteriologists,** San Francisco Hilton, San Francisco.
Mar. 10-12	**American College of Surgeons, Sectional Meeting,** Sheraton-Boston, Boston.
Mar. 10-12	**Postgraduate Course in Diagnostic Ultrasound,** University of Colorado School of Medicine, Denver.
Mar. 10-12	**Postgraduate Course on Pediatrics,** University of Kansas Medical Center, Battenfeld Auditorium, Kansas City, Kansas.
Mar. 13-14	**Conference on Clinical Approach to Coronary Artery Disease,** University of Wisconsin Medical Center, Madison.
Mar. 13-15	**Course in Current Problems in Electroencephalography: Advances Toward Their Solution, sponsored by American Electroencephalographic Society and Baylor University College of Medicine,** Texas Medical Center, Houston.
Mar. 13-15	**1969 National Medicolegal Symposium jointly sponsored by American Medical Association and American Bar Association,** Caesar's Palace, Las Vegas.
Mar. 13-15	**Practical Management of Poisoning,** University of Nebraska Medical Center, Omaha.
Mar. 14-15	**American Association of Obstetricians and Gynecologists.** Olympic Hotel, Seattle.
Mar. 15	**Nebraska Regional Meeting, sponsored by American College of Physicians,** Omaha.
Mar. 15-19	**American Academy of Allergy,** Americana, Bal Harbour, Florida.
Mar. 17-19	**Postgraduate Course on Otorhinolaryngology, University of Kansas School of Medicine,** Battenfeld Auditorium, Kansas City, Kansas.
Mar 17-21	**Recent Advances in Cardiovascular Disease sponsored by American College of Physicians,** Mount Sinai Medical Center, Blumenthal Auditorium, New York.
Mar. 20-21	**Postgraduate Course in Obstetrics and Gynecology,** University of Nebraska Medical Center, Omaha.
Mar. 20-22	**American Academy of Facial Plastic and Reconstructive Surgery,** The Royal Orleans, New Orleans.
Mar. 22-26	**American Society of Abdominal Surgeons,** Caesar's Palace, Las Vegas.
Mar. 23-24	**American Society for Head and Neck Surgery,** Roosevelt Hotel, New Orleans.
Mar. 24-26	**24th Annual Postgraduate Symposium on Surgery,** University of Kansas School of Medicine, Kansas City, Kansas.
Mar. 24-28	**Modern Pathology for Internists sponsored by American College of Physicians,** University of Pittsburgh School of Medicine, Pittsburgh.
Mar. 24-29	**Postgraduate Course on Gynecological Pathology, Cytogenetics and Endocrinology,** Marquette School of Medicine, Milwaukee.
Mar. 26-27	**Fourth Annual Spring Conference on Prevention and Management of Sports Injuries,** University of Wisconsin Medical Center, Madison.
Mar. 26-28	**Three Days of Gastroenterology sponsored by American College of Physicians,** Emory University School of Medicine, Atlanta.
Mar. 27-28	**Postgraduate Course in Advanced Medical Microbiology for Medical Technologists,** University of Nebraska Medical Center, Omaha.
Mar. 27-29	**Primary Pediatrics in the Process of Child Health Care,** Wisconsin Medical Center, Madison.
Mar. 28-29	**3rd National Congress on Socio-Economics of Health Care,** Palmer House, Chicago.
Mar. 28-29	**American Otological Society,** Roosevelt Hotel, New Orleans.
Mar. 28-30	**Fourth Annual Course on Athletic Injuries, Chicago Committee on Trauma of the American College of Surgeons,** John B. Murphy Memorial Auditorium, Chicago.
Mar. 31-Apr. 2	**American Association for Thoracic Surgery,** Fairmont Hotel, San Francisco.
April 9-11	**Postgraduate Course in Management and Care of Respiratory Insufficiency,** University of Colorado School of Medicine, Denver.
April 9-11	**Postgraduate Course in Management of Acute and Chronic Respiratory Failure,** University of Nebraska Medical Center, Omaha.
April 14-15	**Postgraduate Course on Cardiac Auscultation,** New York University Post-Graduate Medical School, New York.
April 14-17	**Postgraduate Course in Obstetrics and Gynecology, University of Colorado School of Medicine,** Colorado Springs.
April 14-18	**Postgraduate Course on High Risk Infant Care,** University of Colorado School of Medicine, Denver.
April 16-19	**Thirteenth Annual Postgraduate Course in Trauma sponsored by Chicago Committee on Trauma, American College of Surgeons,** John B. Murphy Memorial Auditorium, Chicago.
April 20-25	**50th Annual Session, American College of Physicians,** Conrad Hilton Hotel, Chicago.
April 21-23	**American Academy of Pediatrics spring session,** Sheraton-Boston Hotel, Boston.
April 21-24	**1969 American Industrial Health Conference,** Shamrock-Hilton, Houston.
April 24-25	**Postgraduate Course on Theory and Practice of Contact Lenses,** New York University Post-Graduate Medical School, New York.
April 24-25	**Second Postgraduate Course sponsored by American Fertility Society,** Carillon Hotel, Miami Beach.
April 24-26	**Postgraduate Course in Clinical Dermatology,** University of Colorado School of Medicine, Denver.

(Continued on page 206)

IOWA MEDICAL SOCIETY

Organized in 1850

1969 ANNUAL MEETING

April 27-30

Hotel Fort Des Moines and Hotel Savery
Des Moines



Hotel Fort Des Moines



CECIL W. SEIBERT, M.D.

President
Iowa Medical Society
1968-1969

GENERAL SESSIONS

Grand Ballroom—Hotel Fort Des Moines

Monday Morning, April 28

8:00 a.m. EXHIBITS—EARLY-BIRD BREAKFAST

8:55 a.m. INVOCATION
Rt. Rev. Msgr. John M. Fischer, Waterloo, Iowa

IMAGINATIVE APPROACHES TO THE DELIVERY OF MEDICAL SERVICES TO THE RURAL COMMUNITY

9:00 a.m. President's Address: "Change: What Kind? How Much?"
Cecil W. Seibert, M.D., Waterloo, Iowa, President, Iowa Medical Society

9:30 a.m. "Bricks and Mortar: Modular Plan Hospitals"
Raymond D. Reed, Ames, Iowa, Head, Department of Architecture Iowa State University

10:00 a.m. RECESS TO VISIT EXHIBITS

10:45 a.m. "Moving Medical Data—Not the Patient"
Gilbert R. Eggen, Des Moines, Iowa, General Marketing Manager, Northwestern Bell Telephone Company

11:15 a.m. "Transportation: Getting the Patient and the Doctor Together"
J. Cuthbert Owens, M.D., Denver, Colorado, Professor of Surgery, University of Colorado Medical Center

This Program Is Acceptable for
4½ ELECTIVE HOURS
by the
American Academy of General Practice

11:45 a.m. RECESS TO VISIT EXHIBITS

12:00 noon LUNCHEON PROGRAM
(To be announced)

Monday Afternoon, April 28

2:00 p.m. "Hospital Administration and Medical Staff: Working Together for Innovation"
Gerald W. Mungerson, Boston, Massachusetts, General Director, Boston Hospital for Women

2:30 p.m. "The Physicians' Assistants of Tomorrow"
John C. MacQueen, M.D., Iowa City, Iowa, Associate Dean, University of Iowa College of Medicine

3:00 p.m. RECESS TO VISIT EXHIBITS

3:45 p.m. "Wrap-Up: Relating the New Concepts to the Present Situation"
Charles C. Edwards, M.D., Chicago, Illinois, Vice President, Booz, Allen, Hamilton, Inc.

4:00 p.m. DISCUSSION: The speakers will welcome comments and questions from the audience.

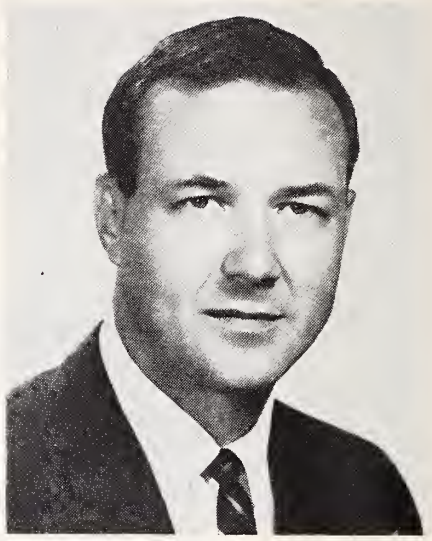
ARTHUR ERSKINE MEMORIAL LECTURE

"Radioisotope Scanning—Past, Present & Future"

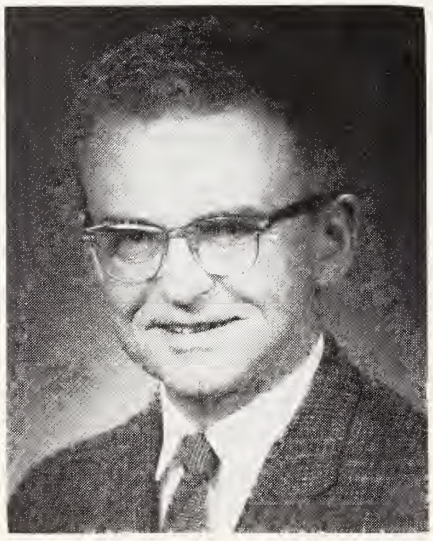
James H. Christie, M.D.
Head, Department of Radiology
University of Iowa College of Medicine

9:00 a.m.—Tuesday, April 29





James H. Christie, M.D., Iowa City, head, Department of Radiology, University of Iowa College of Medicine. **Charles C. Edwards, M.D., Chicago, Illinois,** vice president of Booz, Allen, Hamilton, Inc., management consultant firm; former director of the Division of Socio-Economic Activities, American Medical Association. **Gilbert R. Eggen, Des Moines, Iowa,** general marketing manager, Northwestern Bell Telephone Company; member of the Board of Trustees, Doane College and of the Board of Directors, Sales and Marketing Executives Club of Central Iowa.


Evalyn S. Gendel, M.D., Topeka, Kansas, chief of the School Health Section, Division of Maternal and Child Health, Kansas State Department of Health; member of the Board of Directors, Sex Information and Education Council of the United States, and of the USPHS Surgeon-General's Comprehensive Health Planning, Training and Studies Review Committee. **John C. MacQueen, M.D., Iowa City, Iowa,** associate dean of the University of Iowa College of Medicine; diplomate, American Board of Pediatrics; member of the Advisory Council to the State Comprehensive Health Planning Program, and of the Task Force on Medical Manpower of the Iowa Medical Society. **Gerald W. Mungerson, Boston, Massachusetts,** general director of the Boston Hospital for Women; member of the American College of Hospital Administrators, of the American Hospital Association, and of the Institutional Conference Committee of the New England Hospital Assembly.

General Sessions (Continued)

Grand Ballroom—Hotel Fort Des Moines

Tuesday Morning, April 29

8:00 a.m. EXHIBITS—EARLY-BIRD BREAKFAST

9:00 a.m. ARTHUR ERSKINE MEMORIAL LECTURE:
"Radioisotope Scanning: Past, Present and Future"
James H. Christie, M.D., Iowa City, Iowa, Head, Department of Radiology, University of Iowa College of Medicine

9:30 a.m. "The B-C-D of Parenteral Fluid Therapy"
Harry F. Weisberg, M.D., Chicago, Illinois, Clinical Professor of Medicine, The Chicago Medical School, University of Health Sciences

10:00 a.m. RECESS TO VISIT EXHIBITS

ADULT-ADOLESCENT HANG-UPS

10:45 a.m. "From Tom Mix to Star Trek: Or the Bomb, the Pill and the Box"
Paul F. Sharp, Ph.D., Des Moines, Iowa, President, Drake University —Moderator

11:00 a.m. "The Rhetoric of Youthful Dissent: Reflections of an Eisenhower Youth"
Robert C. Riordan, Cambridge, Massachusetts, Graduate Degree Student, Harvard University

11:45 a.m. RECESS TO VISIT EXHIBITS

12:00 noon LUNCHEON PROGRAM
"Men, You Are Wearing Your Manners"
William J. Reichardt, Des Moines, Iowa, President, Reichardt's Inc.

Tuesday Afternoon, April 29

1:30 p.m. "Education About Sexuality"
Evalyn S. Gendel, M.D., Topeka, Kansas, Chief, School Health Section, Division of Maternal and Child Health, Kansas State Department of Health

2:15 p.m. THE BALDRIDGE-BEYE MEMORIAL LECTURE
Presented by the Scanlon Medical Foundation/Iowa Medical Society
"Psychodynamics of the Adolescent's Use of Drugs and Alcohol"
Byron Stinson, M.D., Columbus, Ohio, Instructor, Department of Psychiatry, Ohio State University College of Medicine

3:00 p.m. RECESS TO VISIT EXHIBITS

3:45 p.m. DISCUSSION: The speakers will welcome comments and questions from the audience.
Abigail Van Buren, author of the "Dear Abby" syndicated newspaper column, will join the speakers for the open discussion session. Miss Van Buren will also present an address at the IMS Annual Banquet Tuesday evening.

MEN, YOU ARE WEARING YOUR MANNERS!!

A luncheon presentation by

Mr. William J. Reichardt
President of Reichardt's Inc.
(Men's & Women's Clothing Stores)

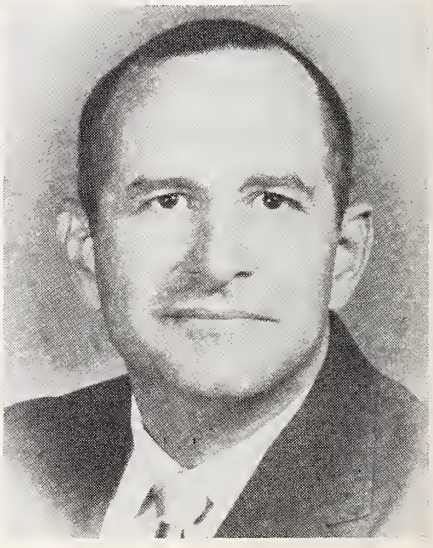
12:00 Noon—Tuesday—April 29





J. Cuthbert Owens, M.D., Denver, Colorado, professor of surgery, University of Colorado Medical Center; member of the Governor's Medical Advisory Board for Traffic Safety and of the Committee on Trauma of the American College of Surgeons; consultant to the Commission on Emergency Medical Services, American Medical Association. **Raymond D. Reed, Ames, Iowa,** head, Department of Architecture, Iowa State University; member of the Board of Directors, Iowa Chapter, American Institute of Architects, and chairman of the National AIA Committee on Education. **William J. Reichardt, Des Moines, Iowa,** State Senator, Polk County; president, Reichardt's Inc. (men's and women's clothing stores).





Robert C. Riordan, Cambridge, Massachusetts, graduate degree student, Harvard University; former teaching fellow, Miles College, Birmingham, Alabama; former member, Peace Corps Training Staff. **Paul F. Sharp, Ph.D., Des Moines, Iowa,** president of Drake University; chairman of the Commission on Plans and Objectives for Higher Education, American Council on Education; chairman of the Executive Committee of the Iowa Association of Private Colleges and Universities; chairman of the Iowa Legislative Processes Study Committee. **Byron Stinson, M.D., Columbus, Ohio,** instructor in the Department of Psychiatry, Ohio State University College of Medicine.

Special Meetings and Dinners

Saturday, April 26

PAST PRESIDENTS' DINNER

Des Moines Club

Social Hour: 6:30 p.m.—Dinner: 7:30 p.m.

Sunday, April 27

GOLF TOURNAMENT

The annual golf tournament will be held at the Willow Creek Golf Course, 63rd and Army Post Road. Reservations for play and golf carts should be made in advance with the course manager. Dinner and awarding of prizes will be held at the Holiday Inn South, Fleur Drive. Reservations: Harold J. McCoy, M.D., 212 Bankers Trust, Des Moines.

Monday, April 28

AMERICAN MEDICAL WOMEN'S ASSOCIATION, IOWA BRANCH 19

Members of the American Medical Women's Association, Iowa Branch 19, should register at the IMS Registration Desk, Hotel Fort Des Moines. If a special meeting is arranged, details will be available at the desk.

IOWA ACADEMY OF SURGERY

Des Moines Club

Business Session—5:00 p.m.
Social Hour: 6:45 p.m.—Dinner: 8:00 p.m.
Reservations: Mrs. Sue Hyler
Executive Secretary, IAS
314 Grimes, Polk City

IOWA ASSOCIATION OF PATHOLOGISTS

Hotel Fort Des Moines
Business Meeting: 5:00 p.m.—Room 318

Des Moines Club
Social Hour: 6:30 p.m.—Dinner: 7:30 p.m.
(Wives Invited)
Reservations: John Green, M.D.
1423 Woodland, Des Moines

IOWA ORTHOPEDIC SOCIETY

Des Moines Club
Social Hour: 6:00 p.m.—Dinner: 7:00 p.m.
Reservations: K. M. Keane, M.D.
508 Frances Building, Sioux City

IOWA PSYCHIATRIC SOCIETY

Johnny and Kay's Restaurant
6:00 p.m.
Reservations: Richard E. Preston, M.D.
1405 Woodland Avenue, Des Moines, Iowa

IOWA RADIOLOGICAL SOCIETY

Hotel Fort Des Moines
Business Meeting: 5:00 p.m.—Room 340
Social Hour: 6:30 p.m.—Dinner: 7:30 p.m.
Reservations: L. L. Maher, M.D.
1419 Woodland, Des Moines

LEGISLATIVE CONTACT MEN

Reception for Members
of the 63rd Iowa General Assembly
Hotel Savery
6:00 p.m.—Terrace Room

Tuesday, April 29

PRESIDENT'S RECEPTION

North Room—Hotel Fort Des Moines
6:00 p.m.

ANNUAL BANQUET

Grand Ballroom—Hotel Fort Des Moines
7:00 p.m.

PRESIDENT'S RECEPTION

6:00 p.m.

Tuesday, April 29

North Room—Hotel Fort Des Moines

Blue Shield Is Arranging the Reception
in Honor of Cecil W. Seibert, M.D.,
President of the Iowa Medical Society

ANNUAL BANQUET

7:00 p.m.

Tuesday, April 29

Grand Ballroom—Hotel Fort Des Moines



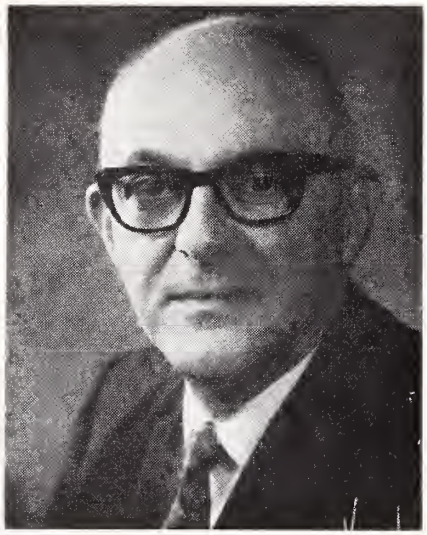
Featuring

ABIGAIL VAN BUREN

author of the "Dear Abby"
syndicated newspaper column
and radio-television personality

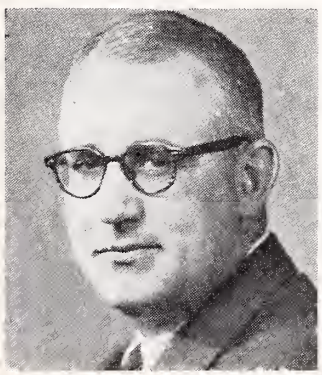
Tickets Will Be Sold at the Registration Desk
Hotel Fort Des Moines





Abigail Van Buren, St. Paul, Minnesota, author of the "Dear Abby" syndicated newspaper column, and featured speaker on a daily CBS radio series. **Harry F. Weisberg, M.D., Chicago, Illinois,** clinical professor of medicine, the Chicago Medical School, University of Health Sciences; member of the American Society of Clinical Pathologists.

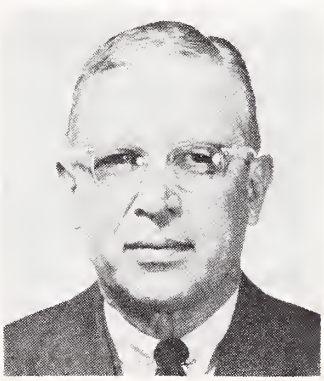
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Chairman



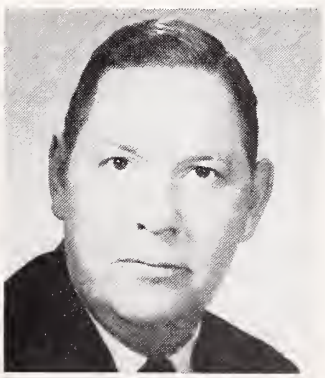
J. E. Kelsey, M.D.
Co-chairman



W. J. Balzer, M.D.



R. C. Larimer, M.D.



J. E. Tyrrell, M.D.



S. E. Ziffren, M.D.

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Abbott Laboratories, North Chicago, Illinois

American Business Forms and Systems, Inc., Des Moines, Iowa

American Medical Building Guild, Inc., Madison, Wisconsin

Apache Corporation, Minneapolis, Minnesota

Blue Shield, Des Moines, Iowa

CIBA Pharmaceutical Company, Summit, New Jersey

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J. B. Lippincott Company, Philadelphia, Pennsylvania

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ATTENTION, DOCTORS!

Something new has been added to the Annual Meeting Program

. . . YOU . . .

You'll have a chance to question and comment on the presentations which relate to two of our most important concerns . . .

MONDAY: DELIVERY OF MEDICAL SERVICES

TUESDAY: ADULT-ADOLESCENT HANG-UPS

The House of Delegates

Open to All Members

First Meeting—Sunday
April 27, 9:00 a.m.

Grand Ballroom
Savery Hotel

Roll Call

Approval of the Minutes of the Meeting held on May 1, 1968

Reports of Officers

Nominations

Reports of Committee Chairmen

Memorials and Communications

New Business



Paul M. Kersten, M.D.
Speaker

Second Meeting—Wednesday
April 30, 8:00 a.m.

Grand Ballroom
Savery Hotel

Roll Call

Reading of Minutes

Election of Officers

Reports of Committees

Unfinished Business

New Business

Adjournment

INSTALLATION OF THE PRESIDENT

W. M. Krigsten, M.D., president-elect, will be installed as President of the Iowa Medical Society on Wednesday, April 30, immediately following adjournment of the House of Delegates.

VISIT YOUR EXHIBITS

Hotel Fort Des Moines

Technical Exhibits—
Mezzanine Floor

HOURS

Monday, April 28—
8:00 a.m. to 5:00 p.m.
Tuesday, April 29—
8:00 a.m. to 5:00 p.m.

EARLY-BIRD BREAKFASTS

(Coffee and Rolls)

8:00 a.m. to 9:00 a.m.

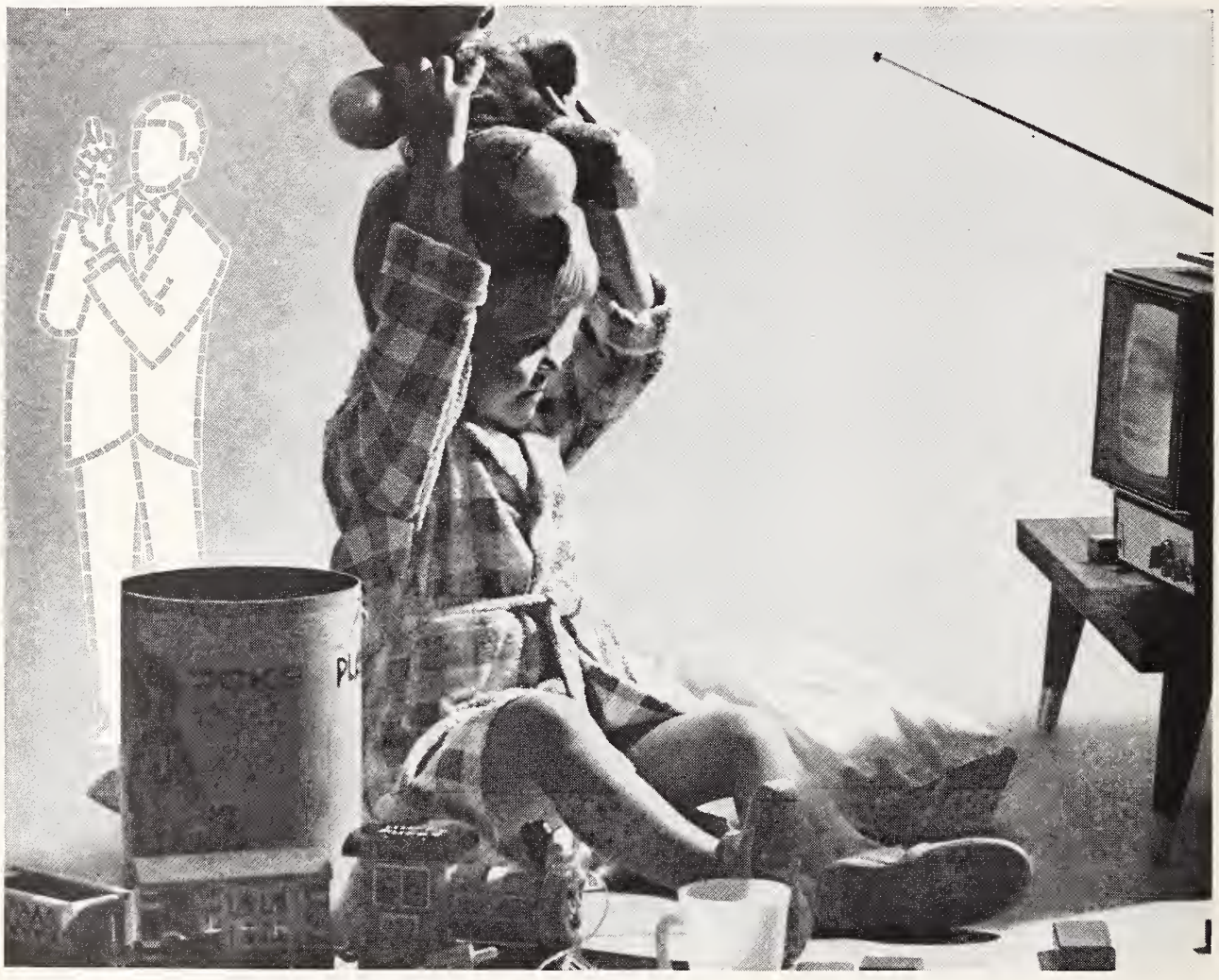
Monday, April 28

Tuesday, April 29

North Room—
Hotel Fort Des Moines

Courtesy of Blue Shield

It's almost as if you were there to give an injection of penicillin



V-Cillin K®, Pediatric dependable oral penicillin therapy

Potassium Phenoxymethyl Penicillin

Description: V-Cillin K, the potassium salt of V-Cillin® (phenoxymethyl penicillin, Lilly), combines acid stability with immediate solubility and rapid absorption. Higher, more rapid serum levels are obtained than with equal oral doses of penicillin G.

Indications: Streptococcus, pneumococcus, and gonococcus infections; infections caused by sensitive strains of staphylococci; prophylaxis of streptococcus infections in patients with a history of rheumatic fever; and prevention of bacterial endocarditis after tonsillectomy and tooth extraction in patients with a history of rheumatic fever or congenital heart disease.

Contraindication: Penicillin hypersensitivity.

Warnings: In rare instances, penicillin may cause acute anaphylaxis which may prove fatal unless promptly controlled. This type of reaction appears more frequently in patients with a history of sensitivity reactions to penicillin or with bronchial asthma or other allergies. Resuscitative drugs should be readily available. These include epinephrine and pressor drugs (as well as oxygen for inhalation) for immediate allergic manifestations and antihistamines and corticosteroids for delayed effects.

Precautions: Use cautiously, if at all, in a patient with a strongly positive history of allergy.

In prolonged therapy with penicillin, and particularly with high parenteral dosage schedules, frequent evaluation of the renal and hematopoietic systems is recommended.

In suspected staphylococcus infections, proper laboratory studies (including sensitivity tests) should be performed.

The use of penicillin may be associated with the overgrowth of penicillin-insensitive organisms. In such cases, discontinue administration and take appropriate measures.

Adverse Reactions: Although serious allergic reactions are much less common with oral penicillin than with intramuscular forms, manifestations of penicillin allergy may occur.

Penicillin is a substance of low toxicity, but it possesses a significant index of sensitization. The following hypersensitivity reactions have been reported: skin rashes ranging from maculopapular eruptions to exfoliative dermatitis; urticaria; and reactions resembling serum sickness, including chills, fever, edema, arthralgia, and prostration. Severe and often fatal anaphylaxis has occurred (see Warnings). Hemolytic anemia, leukopenia, thrombocytopenia, and nephropathy are rarely observed side-effects and are usually associated with high parenteral dosage.

Administration and Dosage: Usual dosage range, 125 mg. (200,000 units) three times a day to 500 mg. (800,000 units) every four hours. For infants, 50 mg. per Kg. per day divided into three doses.

See package literature for detailed dosage instructions for prophylaxis of streptococcus infections, surgery, gonorrhea, and severe infections.

How Supplied: Tablets V-Cillin K® (Potassium Phenoxymethyl Penicillin Tablets, U.S.P.), 125 mg. (200,000 units), 250 mg. (400,000 units), and 500 mg. (800,000 units).

V-Cillin K® (potassium phenoxymethyl penicillin, Lilly), Pediatric, for Oral Solution, 125 mg. (200,000 units) and 250 mg. (400,000 units) per 5 cc. of solution (approximately one teaspoonful). [042567A]

900134 **Additional information available to physicians upon request.**

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Lilly

One View on Therapeutic Abortion

REV. PAUL B. McCLEAVE, LL.D.
Chicago, Illinois

We are living in a very strange time. Regarding our era, George Burrow recently said this in his book, THE ETHICS OF DECISION:

"We are not sure that there is such a thing as right or wrong, good or bad, and the complete uncertainty about moral values is the root of the terrible confusion which we are in."

If Shakespeare hadn't said it first, I could say that these times "are out of joint." Perhaps the most serious evidence is that the youth of today are questioning what you and I were taught to accept as basic values. I am not talking about basic truths or basic moral truths; I am speaking about basic values.

Today's young people are questioning what we, as parents, commend to them as proper values because they see that we are not exemplifying those values in our own lives.

And they're right, in many cases. How can we justify punishing a child for cheating in school when we are laughing about having cheated the government on our income tax returns? That is an attempt to impose a dual standard.

In addition, social pressures are being brought to bear today to change many of the attitudes we have—attitudes toward values.

Scores of examples could be given, but I want to limit myself to my subject.

IS THERE A SIMPLE MORAL ISSUE?

One of the problems that confronts us when we talk about therapeutic abortion is that, for some reason or other, we have erected a rigid standard in our minds—almost a Puritanical one: we have decided that abortion is morally wrong.

I doubt that it is.

In a similar vein, the nation's press has tried to involve us in a moral issue with regard to heart transplants. Because people are accustomed to equating the heart with life or love or compassion, it is held by some that heart transplantation must involve a moral issue.

There is no moral issue in transplants. The heart is nothing more than tissue and muscle; and whether or not to transplant one has no more moral implications than any other medical procedure. It is a decision to be made by the the physician on the basis of medical evidence.

The question of who has the responsibility for the decision has been discussed widely in print. You can find people who say it is a legal problem. You can find those who say it is a theological problem. And you can find those who say it is a medical problem. But in the final analysis it is a surgical procedure.

Many people today are pushing their points of view regarding abortion. There are many who would like to make it available simply on demand, and you have felt their pressure. Tomorrow, their pressure is going to become more insistent.

We even find those who would use therapeutic abortion as a means of controlling family size and maintaining an optimum standard of living. But that is where I draw a line and question its justifiability.

There also are patients who are demanding answers today. They want to be told "yes" or "no." I suppose they expect it because all the doctors on TV have all of the answers to all medical problems.

I would also like to suggest that social institutions no longer are fixed in their feelings and attitudes toward many age-old questions. The Roman Catholic Church is no longer monolithic or undivided on the question at issue here.

Many social problems trouble us sorely—teenage marriage, divorce, out-of-wedlock pregnancy, delinquency, marital discord, alcoholism and drug dependence. But our tragedy of all tragedies is that we have unwanted and uncared-for children!

Rev. Dr. McCleave is secretary of the AMA Committee on Medicine and Religion. He made this presentation at the 1968 annual meeting of the Iowa Medical Society.

Abortion is a legitimate issue. And I believe the doctor has a right—and quite correctly so—to be raising this question and confronting it, if for no other reason than to try to control the incompetent competitors in this field of endeavor.

An abortion can be performed in a modern hospital without any problem as far as medical safety is concerned. But it is my conviction that abortions done in dim parlors are medical atrocities.

Not too long ago I was on a ward at Cook County Hospital in Chicago where I saw 19 young ladies bleeding to death. Each had aborted herself with a coat hanger or a stick. As a consequence of these activities, four young-adult bodies go out of that ward every week to the morgue.

Is it better that an abortion be attempted in an alley, or in the bedroom of a terrified girl; or that she be given a chance for life and health by aborting her skillfully, under optimum conditions? It is a question that must be asked. And it is one that must be answered by the medical profession and by society.

It does seem quite right, however, for the physician to make distinctions. He will want to distinguish between therapeutic abortion and simple abortion.

As for the moral question, I would say that to pass a law saying anyone may be aborted who wishes to undergo such an operation would fail to serve the best interests of the women involved, or of physicians or of society.

But therapeutic abortion is something else, for it represents a medical decision.

There is a great deal of difference between the woman with eight children who finds herself pregnant again; and the woman in similar circumstances who also is sickly. To abort the latter could be justified therapeutically: It is better to enable her to care for the first eight than to require that she destroy herself in an attempt to take care of nine.

There is a great deal of difference between either of those mothers, on the one hand, and the healthy young pregnant woman who decides that right now she doesn't want any children; that she is not quite ready. I believe there is a moral issue involved in that case.

Medically speaking, there also is a difference between the unintentionally pregnant woman of 50 whose husband has just died and whose children have grown up; and the merry, young, childless grass widow who made a mistake about taking her pills.

Each case, it seems to me, raises the question, "What are we talking about?" Are we talking about abortion; or therapeutic abortion? Like any other procedure a physician has occasion to consider, he must ask himself whether it would be for the good of the patient; or something he might do simply to satisfy the mind of the patient.

DECISIONS SHOULD BE MADE BY PARTICULAR PHYSICIANS AND BASED ON INDIVIDUAL CASES

Therapeutic abortion, it seems to me, is going to place a tremendous demand and a tremendous pressure on physicians. Before any medical society takes action on this question, I think the members must realize that mere passage of a law is not going to solve the problem. It might even make it worse. Legislation could compound the situation; for if it is made legal for you to perform therapeutic abortions, a mechanism also can be established that will say you *must* perform one in a particular case.

When a patient says, "After all, Doctor, I am your friend. I need this desperately!," you will no longer be able to stand on the law and say, " I may not do it."

A Roman Catholic doctor can say it; after all, it is his own doctrine and his own creed to say "No." But the Roman Catholics are the only religious group in our western world who contend that abortion is murder.

However, it seems to me that in our pluralistic society no group is entitled to say "no" to another group. Whatever our mores, our creeds, our attitudes and our faiths, we have a right to them in our free society. I have no right to force my conscience upon anyone else, any more than someone else has a right to force his conscience on me.

Another question physicians must ask themselves is ethical rather than moral. It arises when the prospective mother has had rubella during her first trimester. We know that in 20 per cent of the cases, such women give birth to physically and/or mentally deformed children. But what about the other 80 per cent? How do you weigh such chances? Medi-

cal authorities have told me that no one can tell, during the first trimester, whether the fetus is destined for mental or physical abnormality.

What I am saying is that the decision should rest, in each instance, with the physician and his own moral conscience. He is accustomed to life-and-death decisions; he makes them even when writing prescriptions.

If the mother's total health is involved; or if the health of the fetus is involved; and if the doctor feels that the operation may be performed under the circumstances; then the question is a therapeutic one, the procedure will be a medical one and the responsibility will be a medical one.

I remember speaking to a group in Atlantic City shortly after a discussion of this topic had been held. The conclusion reached by the panel there was simply that the freedom of conscience of both patient and physician must be preserved. If we don't preserve that freedom of conscience, the panel said, we are doing something which is morally wrong.

At the present time, six states have legalized therapeutic abortions. It is my prediction that within a very few years the doctor's dilemma in this connection will be quite different from the one he has faced in the past and faces now.

When the laws I predict have been enacted, the decision will have been put more clearly in the hands of the physician. He will be required to decide what is medically right and what is healthful. His problem will then be to decide whether to follow a limited therapeutic abortion schedule within the practice of medicine; or to perform an abortion for almost anyone who asks for it.

In this new situation, the maturity and the professional responsibility of the medical profession will be tested far more than they have been tested before.

It is wise that physicians are discussing the question, for medicine is going to find itself under tremendous pressure in this regard.

We have to recognize that abortion is a medical procedure which the law either grants or refuses the physician the right to do. The morality and ethics of it are the problem of the moral conscience of the physician; not the privilege of one group or faith to determine for our entire pluralistic society.

Therapeutic Abortion—The Law

SAMUEL M. FAHR, LL.B.
Iowa City

AT THE OUTSET, the reader should notice that the title of the subject to be discussed is not "Abortion," but "Therapeutic Abortion." To put it another way, we seem to be concerned with a general phenomenon which needs an adjective to qualify and explain it; it is not abortion to gratify a whim or a purely personal wish.

This is so because the subject of abortion affects and is affected by the fact that it involves sex and life itself, and because four interests have affected legislation in the field. One such interest is that of the fetus itself. Whether the fetus is quick or not may make a difference in how we look at a given abortion. The second focus is the pregnant woman; we are concerned for her life (which may be lost by bungling or suicide) and for her health, mental or physical. The family, too, has a concern here: how will the threat of pregnancy, pregnancy itself, and a new member of the group affect the family's life together? And finally, we must not forget the community, for it may desire some controls on population. Also persons in the medical profession are clearly affected by the state of the law regarding abortion.

In all of this the law will play a large part,

Mr. Fahr is a professor in the College of Law at the University of Iowa. He gave this address at the 1968 annual meeting of the Iowa Medical Society.

for whether their concern be religious, social, economic or medical, what the law permits or forbids will be the focal point of all interested parties. Therefore, the first thing for us to do is to try to get a bird's-eye view of how the law now stands, recognizing that we are dealing with 50 states and the District of Columbia, that we cannot expect uniformity among the various jurisdictions, and that space limitations prevent a truly detailed and particular discussion. Although the various statutes are comparatively recent, as the law goes, every state purports to regulate abortion practices.

CRIMINAL STATUTES PENALIZING ABORTION

The most obvious form of regulation is in the form of criminal statutes penalizing abortion, either by outright prohibition or by carefully limited exceptions. In three states abortion is prohibited with no express exceptions, though one of them (Massachusetts) has qualified the flat prohibition of the statute by judicial interpretation, and there are hints of this in the other states as well.

All other states provide at least that an abortion is legal when it is necessary to save the life of the mother. However, even this concession is qualified. The legitimacy of an abortion may depend on who performs the life-saving operation; in most of the states anyone may, but in some it may be lawfully performed only by a physician or surgeon.

Lawyers, likewise, will expect that legality may turn, in part, on whether in objective fact the operation was necessary to save the mother's life, or whether it is enough that the person performing the operation believed it was necessary, in good faith, or that he acted "reasonably."

Furthermore, in some states abortion may be justified only when prior consultation has been held with one or more other physicians. (In any case, as a practical matter, such consultation is likely to prevent prosecution.)

A few states permit abortion when necessary to prevent serious bodily injury (New Mexico), or to protect the "health" of the mother. In the latter, the question remains open as regards whether the word *health* includes mental health. And as we shall see, a few states have considerably broadened the types of justification, thus expanding the types of non-criminal abortions. Within the past couple of years Colorado and North Carolina have adopted the Model Penal Code abortion law, and Mississippi and Indiana, which previously had permitted abortion when there was danger to the mother's health, have added the further permission for abortion following rape or incest.

Although there are other types of criminal statutes in the abortion field, I shall list them simply by general type. Eight states prohibit the willful killing of an unborn quick child under circumstances in which, had the mother and not the fetus been killed, the offense would have been murder. These statutes do not threaten the physician as such, but probably refer to the use of physical force to produce abortion without the woman's consent.

Likewise, some states provide for increased penalties in the case of otherwise criminal homicides involving pregnant women, if death was caused by an abortion.

A few states have statutes making it a crime for a woman to solicit or submit to an abortion. These are useful in trying to persuade a reluctant woman to testify against an alleged abortionist.

Finally, a large number of states have statutes penalizing activity facilitating or encouraging abortion. These statutes strike primarily at self-induced abortion. So, for example, in some states the advertizing of abortifacients is illegal, as may be their sale (Iowa Code 205.51), manufacture, or even giving away. However so few cases are reported as arising under these statutes that one is led to believe they are more honored in the breach than in the observance.

ADMINISTRATIVE SANCTIONS

However, criminal penalties are by no means the only methods used to control abortion. Administrative sanctions may be more efficient in regulating professional conduct than is the criminal law. These administrative sanctions, of course, will apply only to licensed persons or institutions, whose right to practice or function may be taken away for cause.

Almost all the states authorize revocation of a physician's license when he has committed a "criminal" or "unlawful" abortion (e.g., Iowa Code 147.55, .56). In some states osteopaths and nurses are governed by separate statutes. Doctors are familiar with license revocation procedures and appeals, but it is worth noting that acquittal of the charge of committing a

criminal abortion does not guarantee immunity from license revocation in Washington and Florida, extraordinary and unfair as that may seem. And the physician whose license-revocation hearing comes up while a criminal abortion charge against him is still pending is in the hard position of having to risk revocation if he chooses to claim his privilege against self-incrimination.

Finally, there have been a few cases where civil actions for damages have been brought against one who has performed an abortion. Here, one possible defense is that the woman may be barred from suit because she consented to the operation, but this defense cannot be used against the woman's estate if she has died. Of course even a legal abortion, like any other operation, can lead to malpractice claims if it has been bungled.

POSSIBLE CHANGES IN THE LAW

It may be a good idea for us to turn from this jet trip through the law as it is, and to look at the law as it may be, since a change toward what may be called liberalization is in the air in many states, has even occurred in a few, and is under discussion everywhere, reflecting considerable dissatisfaction with the current state of the law and its implications and limitations on families and their physicians, as well as the claim that in any event the law as it stands is ineffectual in preventing abortion.

If the aim is to provide medically-sound abortions for women, and to add to the list of the circumstances in which abortion is legally justified, then one can see two possible techniques that can be used. The technique which is most commonly urged today is a liberalization of the definition of "therapeutic" abortion in the criminal code. This is achieved by any statute permitting abortion to preserve the health of the mother, but it is not clear in some cases whether "health" includes mental health.

Though until 1967 no states did so, the statutory scope for therapeutic abortion might be broadened to include genetic threats (e.g., by rubella or certain drugs) or to include cases where the fetus has resulted from rape or incest. The Model Penal Code (Sec. 230.3) justifies termination of pregnancy *by a licensed physician* on any of three grounds: (a) threat of grave impairment to the physical or mental health of the mother; (b) eugenic considerations threatening the fetus; and (c) pregnancy resulting from rape or incest.

Two states, Colorado and North Carolina, adopted the Model Penal Code provisions almost verbatim in 1967; several other state legislatures are currently considering it seriously; and it has been proposed in a substantial number of other state legislatures. (California adopted it in part, leaving out danger to the unborn child as a lawful justification.) I think it is the measure "most likely to succeed" in the immediate future. Up to February, 1968, a total of 189 licensed therapeutic abortions had been performed in Colorado, of which 98 were justified on psychiatric grounds, 19 because of rape, and 21 because of medical risk to the mother. That is hardly the predicted flood!

If a legislature did not want to go so far as the Model Penal Code, some broadening of scope of therapeutic abortion could be attained by providing that a physician's reasonable belief in the necessity would constitute a defense. Or a legislature could provide formally for establishment of consulting committees to pass on "necessity."

Or a procedural change (to use the lawyer's technical lingo) could ease the situation for doctors and their patients. If a statute made it clear that the prosecution in a criminal case had the burden of proving the *non-necessity* of an abortion—and that would be entirely consistent with burden-of-proof requirements in most of the field of criminal law—conscientious medical practice would be further protected. This would be particularly true if clinics and hospitals set up regular boards to pass on necessity in every case of requested abortion. It is hard to imagine a prosecutor hardy enough to institute criminal action in the face of respectable collective medical judgment.

But perhaps it would be better to liberalize the abortion law not by changes in the criminal law but by adding to the statutes regulating doctors and hospitals. This may appeal to the medical profession, for it seems to permit greater emphasis on medical considerations and leave the advancing of claims of medical transgression to medical groups themselves.

For example, the medical-practice statutes could include specific standards for the performance of therapeutic abortions. This is in effect in several states now, chief among them being Oregon. One could go further and place

the requirements for therapeutic abortions in the hospital-licensing statutes. So far as is known to the author, California is the only state where this has been proposed, and thus far it hasn't been enacted.

Whatever the case, it is clear that the winds of change are blowing briskly on the law of therapeutic abortion, and the real question is not whether to change, but in what way to change it.

Important Policy Changes Regarding Field Clinic Services of the State Services for Crippled Children

As recently as five years ago 4,554 children were examined at State Services for Crippled Children field clinics. Since that time the service has grown appreciably, and last year 6,369 children, 40 per cent more than in 1963, were examined at field clinics. In 1968, a total of 79 clinics were held throughout the state. Thirty-four were general diagnostic clinics for consultation on a variety of childhood health problems. Specialty clinics, consisting of 15 cardiac field clinics, 11 ENT clinics and 19 infant-study follow-up clinics were also held.

We continue to acknowledge our responsibility in providing diagnostic and consultative services to children with significant chronic or congenital health problems.

However, a reduction in governmental appropriations for health plus limited professional staff available for field clinics compels us to alter some of our field clinic services for 1969.

The change in services takes two forms: (1) There will be a modest reduction in the number of field clinics; (2) There will be a reduction in the extent of services at many clinics.

These changes are discussed below:

Changes in the Cardiac Field Clinic Program: Due to the continual growth of numbers of patients that are being seen in the cardiac clinics and the limited number of pediatric cardiologists available to care for them, a number of patients scheduled for return visits in 1969 cannot be seen in local cardiac field clinics. The local field clinics will continue to function as in the past, but they will be utilized for the evaluation of new patients and for follow-up visits of selected patients with established heart disease.

In order to provide a follow-up service for pediatric cardiac patients, there will be State Services for Crippled Children-sponsored cardiac clinics held in Iowa City at regular intervals throughout the year. We would appreciate physicians' help in urging their patients to keep their appointments sent to them for these clinics in Iowa City, even though it will be less convenient for them than it has been in the past.

The initial referral of children with *rheumatic fever* should be to a cardiac clinic. Follow-up on children with inactive rheumatic fever will occur five years after the initial evaluation. If recurrences develop in the interim, please refer the patients. The penicillin prophylaxis program, of course, will continue.

There will be *no ophthalmologist* at field clinics.

The special *ENT clinics* will continue, and there will be otological consultants at some general clinics.

Dental consultants will be available at cardiac clinics only. In selected circumstances, we can arrange for special children's dental services at the Hospital School Department of Pedodontics.

The yearly *recall* system of children with various conditions will be reviewed. Some patients will be recalled as at present; the decision regarding others will be left with the referring physician, and he may refer the child again if he deems it necessary.

There are some clinical conditions which cannot be evaluated well in a field-clinic setting. It is our opinion that in these cases it is in the best interest of patients to secure a direct referral to a medical facility for their evaluation. Physicians interested in University Hospitals referrals for their patients should request them in the usual manner, or so indicate on the clinic referral form provided.

On the other hand, our Service is interested in certain groups of children who can be evaluated reasonably well in an ambulatory setting. These priority groups include children with:

Heart disease, suspected or established

Mental retardation, behavior and learning problems

Speech and hearing problems, including chronic otitis media

Multiple neuromuscular handicaps

Significant orthopedic problems.

Also, in the interest of proper scheduling and more effective clinic evaluation, we should appreciate that each referring physician supply us with an *adequate clinical summary* on the referral form as early as possible prior to a clinic. *Only patients for whom appointments have been made prior to the clinic will be evaluated on that day.*

We thank you for your continued support of our program.

DOROTHY A. EHMKE, M.D.
ROBERT E. DURNIN, M.D.
RONALD M. LAUER, M.D.
Pediatric Cardiologists for the
State Services for Crippled Children
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Scientific Articles

The Future of Transplantation Surgery

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CERTAINLY NO DISCUSSION of the future of transplantation can be complete without a thorough investigation and summary of events that have already transpired. Since the kidney has been the organ most successfully transplanted to date, a concentrated analysis of available data in that particular area of transplantation provides a convenient prelude to a discussion of areas of transplantation less well explored, such as the liver, heart, lung, spleen and pancreas.

The kidney is the organ that is being transplanted. Some 2,100 kidney transplants have been done throughout the world, and 60 per cent of the patients are still alive. Currently, kidney transplantation is the best method of treatment available for people with end-stage kidney disease. Many years of research have preceded this major advance in medical history.

Organ transplantation dates back to the turn of the century, when two American physiologists, Drs. Alexis Carrel and Charles Guthrie, performed a series of experiments at the Rockefeller Institute (now called the Rockefeller University). At that time they discovered a method for anastomosing blood vessels together, and after succeeding they began to realize their major objective of organ transplantation. Transplanting practically every other organ in laboratory animals, in 1905 these scientists succeeded in transplanting a heart from one dog to another. In 1908 the two-headed dog operation was performed, and it was reported in JAMA in 1909, with pictorial documentation. The authors were Guthrie and Carrel. The animal survived for some 36 hours, and the second head apparently functioned for that period of time.

The problems that faced Guthrie and Carrel in the early 1900's were the same problems that challenge surgeons today. All organs were repudiated by their hosts primarily because there is a basic uniqueness inherent in each animal that enables it to react against foreign proteins and to discern between "own" and foreign tissues. This immunologic response is by no means all bad. Indeed, it is the key to our survival in the hostile environment which surrounds us. As a result of these responses, however, Guthrie and Carrel had to cope with more than just technical problems.

The technical details of transplantation had essentially been solved at the turn of the century. However, a number of years elapsed before any appreciable assault on the immunologic problems occurred. Solutions to these difficulties have begun to appear only in recent years, when investigators have attacked the immunologic defense mechanism, a mechanism that not only fends against infection but also is responsible for the repudiation of grafts placed in the host.

Dr. Najarian is chairman of the Department of Surgery in the College of Medical Sciences of the University of Minnesota. This paper was presented at the 1968 annual meeting of the Iowa Medical Society.

DEFINITIONS

It is important to review the terminology unique to the transplanter's field before discussing the immunologic events associated with rejection of the transplanted organ. In transplantation there are four types of grafts that can be performed: 1. The autologous graft, or autograft, is the one most common to surgeons. It is simply tissue that is grafted onto a new site on the same individual. For instance, after a radical mastectomy, skin is taken from the thigh and placed over the chest. Except for technical errors, such a graft should be successful. 2. The isograft is the most confusing of all. In clinical science it occurs only between monozygotic or single-egg twins. The first successful kidney transplants were done in identical twins in 1954 in Boston. The isograft is a graft between identical twins, in whom there is genetic equality. Basically, identical twins represent one individual divided into two, and as with the autograft, barring technical errors such a graft should be successful. 3. The allograft or homograft is of primary interest to transplantation surgeons. This graft is transplanted from one individual to another of the same species. 4. Finally, the genetically most disparate of the four grafts is the heterograft, in which the species barrier is crossed from animal to man, or between different species of animals.

Of course the surgeon's primary emphasis, now, is on the allograft. Although it is an oversimplification, one can equate the graft itself with an antigen or other foreign body, and then consider what occurs in transplantation. Serum protein antigens or organ grafts produce similar responses. There are two sides of the immunologic arc. There is the afferent side, whereby the host recognizes the tissue or antigen as being foreign. Once it has made that recognition, the host reacts against it through the efferent side of the arc by forming antibodies or cells. Usually these cells are (1) lymphoid cells—small, medium and large lymphocytes—or (2) antibodies that neutralize the graft. A combination of these occurs in transplantation. Immunologically competent cells (lymphoid cells) and antibodies are formed, and appear to react in concert.

In transplantation research, investigators have tried unsuccessfully to attack the immunologic problem first on the afferent side, by means of a direct alteration of the graft and through trying to make the host unaware that the graft tissue was foreign. These techniques failed, and researchers next turned their attention to the efferent side of the arc, whereby the host normally reacts against a graft. The first attempt at altering the efferent mechanisms was through the use of total-body irradiation—in the 1950's, primarily in the late 1950's. Unfortunately, most of the patients died from the effects of total-body irradiation. In the late 1950's, chemotherapeutic agents—the radiomimetics—were employed with encouraging results. These are the drugs that are in current use.

Three primary groups of immunosuppressive drugs were tried. The first were the alkylating agents such as nitrogen mustard, but they were unsuccessful. They reacted directly against the DNA of the cell, and exerted no cellular discrimination. Thus, they were ineffective immunosuppressants. The effective agents have been the antimetabolites such as 6MP, 5FU and others in that general category. These antimetabolites are nucleic acid analogs, and they block the synthesis of DNA, thus stopping the cell from dividing. The agent in current use is Imuran, an immidizol derivative of 6MP, and the most effective agent used in clinical transplantation at the present time. Other agents that have been used are antibiotics—peculiar types of antibiotics which act on the protein synthetics chain of the cell. Of course the protein that transplant researchers are interested in is the antibody production of the cell, and we use these agents in an effort to reverse the rejection process once it has begun. The third group of immunosuppressive agents utilized in transplantation consists of prednisone or other corticosteroids.

Thus far, antimetabolites, antibiotics and corticosteroids have proved the most effective means of suppressing the immune response. Because these drugs have been used extensively since 1963, there are sufficient data from which to tabulate five-year results. However, before those findings are presented, the story of kidney transplantation should be told.

KIDNEY TRANSPLANTS

The reasons why kidneys have been transplanted in considerable numbers, rather than

hearts or other organs, are three-fold. First, about 35,000 people in this country die each year from primary kidney disease, and 80 per cent of those 35,000 are between the ages of 15 and 35. Predominantly, they are a young group of patients who otherwise have normal organs, and they die simply because their kidneys have failed. In addition, of all of the transplants the kidney transplant is technically the easiest to perform. It simply requires two blood-vessel anastomoses and a urinary-conduit anastomosis. Thus, the technical facility of the operation has contributed to the frequency of kidney transplantation. Finally, and equally important, the kidney is the only one of the vital paired organs of which a human being can lose one and still survive very well. As a result, scientists have availed themselves of kidney transplantation as a means of learning the basic immunologic tenets that attend the transplantation of any organ. As of July 1968, approximately 2,100 kidney transplants have been done.

A patient with end-stage kidney disease is markedly uremic. Hence, it is absolutely necessary to restore him to as good health as possible prior to transplantation. First, the patient is placed on dialysis, and an arteriovenous shunt, such as the Scribner, is installed. Then the patient is placed on the artificial kidney. Normally, the patient is dialyzed twice a week, and is maintained very well despite having no kidney function at all. At that point the patient is prepared for transplantation. Preferably the patient should receive a kidney from a living blood-relative, since the results are very much better with kidneys from blood-relative donors than from cadaver donors. The blood-relative donor is brought into the hospital, is worked up, and if he has two normal kidneys and otherwise is in good health, he is used as the donor.

In the operation itself, the kidneys and the spleen are removed. Since the spleen is the largest source of lymphoid cells, and because the patient can get along without it, it is removed from the body. The kidneys are removed because approximately 75 per cent of the patients with end-stage renal disease have hypertension that cannot be controlled until their failing kidneys have been excised. In addition, if the patient has pyelonephritis as the cause of his disease, the kidneys are infected, and the infection could eventually spread to the new kidney. Finally, if the patient has glomerulonephritis, the kidneys are removed. If they were left in place in such an individual, glomerulonephritis, an immunologic disease, might sustain antigen stimulation in the body, and might finally cause glomerulonephritis in the kidney transplant. These are the reasons for removing the kidneys and the spleen from the recipient.

The operation itself is very simple. It is performed in two adjoining operating rooms. The kidney is removed from the donor and is perfused with cold Ringer's lactate solution, not only to remove the blood from the kidney but also to cool the kidney to approximately 10°C, and thus sustain it during the period of ischemia that will occur. Perfusion is done simply with a gravity drip. The kidney is then transplanted into the pelvis of the patient, with an end-to-end anastomosis of the renal artery to the internal iliac artery, or possibly an end-to-side anastomosis to the iliac artery, and with an end-to-side anastomosis of the renal vein to the iliac vein. In addition, the ureter is brought into the bladder as a urinary conduit. If the patient is a small child, the vessels are anastomosed directly to the aorta and to the inferior vena cava.

Two thirds of transplant patients experience at least attempted rejection of their kidney transplants within the first 30 days, despite the best immunosuppressive therapy. Most of these kidney rejections (95 per cent) can be reversed by increasing the drug dosages—e.g., prednisone and antibiotics.

One of the things that permits surgeons to do kidney transplants is the fact that the transplanted kidneys undergo hypertrophy. By means of intravenous pyelograms the size of the pre-transplant donor kidney and the size of the transplanted kidney can be compared. The transplanted kidney usually grows to about half again its original size, and becomes capable of assuming about 85 per cent of the function that both kidneys performed in the donor, and more than enough to sustain the patient throughout a predicted normal life span. Thus, both the donor and the recipient will get along well, provided that no rejection takes place in the recipient.

A registry of statistics on kidney transplants performed throughout the world has been maintained for a considerable length of time. A five-year tabulation of these transplants reveals that the best results occur where the donor has been a sibling. There is attrition, or loss of kidneys, in the first year, and then a leveling out to five years. The overall survival is somewhere around 60 per cent. Compare this 60 per cent figure to the overall survival statistics of 42-45 per cent in patients who have had cancer of the breast or of the colon. Actually, in our own individual series, the survival rate at the end of five years is in excess of 75 per cent for kidneys from consanguineous donors.

The next best donor is a parent, and the parent-to-progeny kidney transplant has the same sort of course—a gradual loss of kidneys, primarily during the first year, and then a leveling off to around 45-50 per cent, where it remains to about five years. Basically, a person is genetically much closer to his siblings than to either of his parents simply by genetic chance, for he can share only 50 per cent of the genetic information from one parent or the other, and a prediction of 50 per cent five-year survivals proves, in fact, to be trustworthy.

In cadaver-donor cases, the group to which about half of the transplants belong, the early results were quite discouraging. Up to two years ago the general results showed only a 10 per cent survival rate approximately a year after transplantation. Since that time, however, improved methods of obtaining cadaver material, improved immunosuppressive therapy and local cadaver-kidney irradiation have extended kidney survival time. There are now about 30 per cent survivals at two years, and that rate now persists to four years at the same level.

The comparison between kidneys from cadaver donors and from consanguineous or blood-relative donors is not complete, for only absolute survival statistics have been recorded. Consider this revealing fact. Over 20 per cent of cadaver kidneys never function at all following transplantation, and probably were dead when they were removed from the cadavers. Therefore, the statistics are skewed. About 55 per cent function immediately, and some of the others probably come along with a gradual recovery, as might be expected, after the period of acute tubular necrosis imposed by removal from someone who has recently died. In about 20 days most of these kidneys open up and function very well. However, if we manipulate the statistics by discarding from the tabulation all kidneys that never functioned in the recipients' bodies, and if we disregard the cases in which patients died as a result of the use of immunosuppressive drugs, a picture of ideal achievement can be projected.

In cases where the kidneys have come from related donors, when deaths from extraneous causes have been removed, the findings reveal that surgeons should be able to achieve 75 to 80 per cent successes. After manipulating the statistics regarding kidneys from unrelated donors—either cadaver or unrelated living-donor kidneys—we find that successes have been achieved with 65-70 per cent of the transplants, indicating that immunosuppressive therapy does an effective job.

Finally, the most interesting group of all consists of identical-twin donors and recipients. They were the first to undergo transplantation —in 1954. There is no immunologic difference between identical twins, and the achievement of something like 100 per cent successes with kidney transplants should be possible between such patients. Instead, however, technical problems in the procedure itself have resulted in a 20 per cent loss. Hopefully, then, the kidneys will go along very well in 80 per cent of the cases, and they do, up to about five years. Then a very interesting thing happens. A drop-off occurs between 5 and 6½ years postoperatively, and at that point a new level of survival is established at 50 per cent; this continues out to about 10 years. Why does this take place? The explanation is that in identical twins glomerulonephritis occurs in the newly-transplanted kidney. As a matter of fact, 80 per cent of all identical-twin kidney recipients have developed lesions consistent with glomerulonephritis in the new kidney if glomerulonephritis had been the cause of their renal failure. This has not occurred in transplants between non-identical twins, and the only difference between the two groups has been that no immunosuppressive therapy was used in the identical-twin recipients. Consequently, during the last three years, immunosuppressive therapy has been administered to identical twins, and glomerulonephritis has not been observed in this group.

What is now happening in kidney transplantation? Prior to 1961 there were 55 kidney transplants *per se*. Most of those patients received total-body irradiation, and some of them received nothing. The few survivors prior to 1961 were identical-twin patients. There was very little activity in 1961, but the advent of the drugs in 1962 and 1963 brought on increased numbers of operations, and now about 300 transplants per year are done, and the approximate overall survival rate is 60 per cent. The six-year level is now being approached.

From the transplant statistics recently tabulated at the University of Minnesota, investigators have accumulated the following results. A total of 106 transplants have been done in 90 patients. Fifty per cent of those patients are alive—70 per cent of those who received blood-relative grafts, and 30 per cent of those who received cadaver grafts. These figures are very much in line with those previously reported.

There have been 16 retransplants. In contrast with heart operations, when kidney transplant failure occurs, the patient can be put back on the artificial kidney and retransplanted once, twice and, in some instances, three times. There have been 14 second grafts and two third grafts. The second and third grafts, and in one instance even a fourth graft, now seem to have the same possibility of success as the first graft that was placed in the patient, so that once again the patient has the same statistical chance for an extended life. Actually, no patients should be lost, and few of them are. In the past year just one patient out of some 30 has died. Thus, the percentage of survivals was somewhere around 95 or 96 per cent. Such a rate is possible because surgeons can always take the transplanted kidney out, can revert to extracorporeal dialysis, and can try again. As long as the transplanted kidney is not maintained at all costs, an excellent method of therapy is available that should achieve a rate of patient survival somewhere around 95 per cent. Sixty-five per cent of the consanguineous grafts have survived, and 25 per cent of the cadaver grafts have survived.

LIVER, LUNG, SPLEEN, HEART AND PANCREAS TRANSPLANTS

Other areas of transplantation have not been so successful, although through increased knowledge of tissue typing, better technical performance and other contributory scientific advances, much progress has been made within the past year.

Since the future of transplantation is under discussion, other clinical transplants should be briefly reviewed. As of July, 1968, a total of 2,100 kidney transplants had been done, and between 900 and 1,000 of the patients were still alive. Approximately 34 clinical liver transplants had been performed, and six of the patients had survived. Currently, several groups are interesting themselves in liver transplant, and it probably will be the next area of conspicuous success. Primarily, an ideal candidate for such a transplantation is a young child with biliary cirrhosis who is going to die at the age of 1½ years simply because his liver will not excrete the bilirubin from his body. With the new immunosuppressive drugs, very good results should be achieved in such patients. This entirely justifies our embarking on a new program of liver transplantation.

Nine lung transplants have been done, and the longest survival has been 12 days. Many problems accompany lung transplants. Such problems are related to the denervation that prevents the lung from keeping its ciliary action going. The infection that occurs in the newly transplanted lung is the primary nemesis of the doctors. If it can be overcome—and it will be—successful lung transplants will be performed. Within the next 12 months there should be results to report from the research that is now in progress.

As this is written, there have been 37 heart transplants, with 16 survivors. Heart-transplant statistics should very closely follow the figures on cadaver-donor kidney transplants—i.e., a 40 per cent survival rate at one year and a 25 per cent rate at two years, once the technical difficulties of the operation have been overcome. But, unfortunately, a patient cannot be sustained if the transplanted heart should fail. Thus, until artificial hearts or at least circulatory-assist devices are developed to enable the patient to wait for several days, heart transplants should be performed only in patients who face imminent death from heart disease or are marked cardiac cripples.

Some interest has recently been aroused regarding spleen transplants for hemophiliac pa-

tients, and seven such operations have been performed. One transplant failed after five days, when the spleen ruptured. But someday such transplants will be performed successfully for hemophiliacs. Factor VIII, the antihemophiliac factor, possibly is manufactured in the spleen and liver, and if spleens can be transplanted, it may be possible to cure some of the presently incurable, or very difficult, hemophiliac cases that cannot be managed well with cryoprecipitated globulin (factor VIII).

And finally, the area of pancreatic transplants must be examined. Presently, researchers at the University of Minnesota are exploring this field. Five pancreatic transplants in diabetics with end-stage renal disease have been done. Four of the patients also received a kidney transplant. The longest pancreas transplant lasted some 4½ months. This procedure is still extremely experimental—one which is being pursued both in the experimental laboratory and on a clinical level.

Having scanned the clinical and experimental realms of transplantation, we can ask ourselves, "What of the future?" Much has been accomplished, but there are many frontiers yet to be explored. Improved organ preservation, immunosuppressive drugs and tissue typing should greatly increase the chances of the patient who receives an organ transplant.

If cadaver-organ transplantation is to be increased, scientific activity should be concentrated on the techniques of organ preservation. This is an area that investigators are working on very assiduously at the present time, with accented concentration on methods of freezing and thawing. If it succeeds, organ banks should be an outgrowth of this research.

Better immunosuppression is another objective. In spite of 75 per cent survivals of consanguineous transplants, 25 per cent of the transplants are rejected. Therefore, better immunosuppression is being sought. Anti-lymphocytic serum may be the answer to this problem, and that serum is now being thoroughly investigated.

TISSUE TYPING

Tissue typing is the final area of current research. As techniques for typing are developed, donors and recipients can be matched more closely. Recipients of cadaver organs will benefit especially from laboratory advances. Some preliminary results in tissue typing have been recorded. Twenty-five patients were typed and divided among four clinical classifications. The first group consisted of patients who never had had a rejection crisis, and at the other end of the spectrum the fourth group contained patients who had had several rejection crises which had eventually resulted in loss of the transplanted kidney. The largest percentage of those whose transplants had been compatible had had good clinical courses. And of those whose grafts were incompatible, the largest percentage had had clinical courses that resulted in the loss of the kidney itself. So, with a combination of improved tissue typing and current immunosuppressive therapy, better results are now being obtained.

CONCLUSION

As previously stated, kidney transplantation is an excellent therapeutic measure for patients with end-stage kidney disease at the present time. It no longer is an experimental procedure, except for the furtherance of knowledge in the realm of transplantation biology. Admittedly, the operation is expensive. To perform a single kidney transplant, $15,000 is required, but with money and with time, as this procedure is developed in university centers, transplantation surgery is going to penetrate the entire area of medicine. With transplantation or replacement of organs, we shall see a new era in medicine which was only a wishful dream a few years ago.

Coming Meetings

(Continued from page 182)

April 28-May 1	**17th Annual Clinical Meeting of American College of Obstetricians and Gynecologists,** Americana Hotel, Bal Harbour, Florida.
April 28-May 2	**Postgraduate Course on Ophthalmoscopy,** New York University Post-Graduate Medical School, New York.

ABROAD

Mar. 28-30	**International Medical Congress (6th),** Verona, Italy.
April 8-10	**Institute of Cancer Research,** Cambridge, England.
April 13-16	**European Society for Experimental Surgery. 4th Congress,** Davos, Switzerland.

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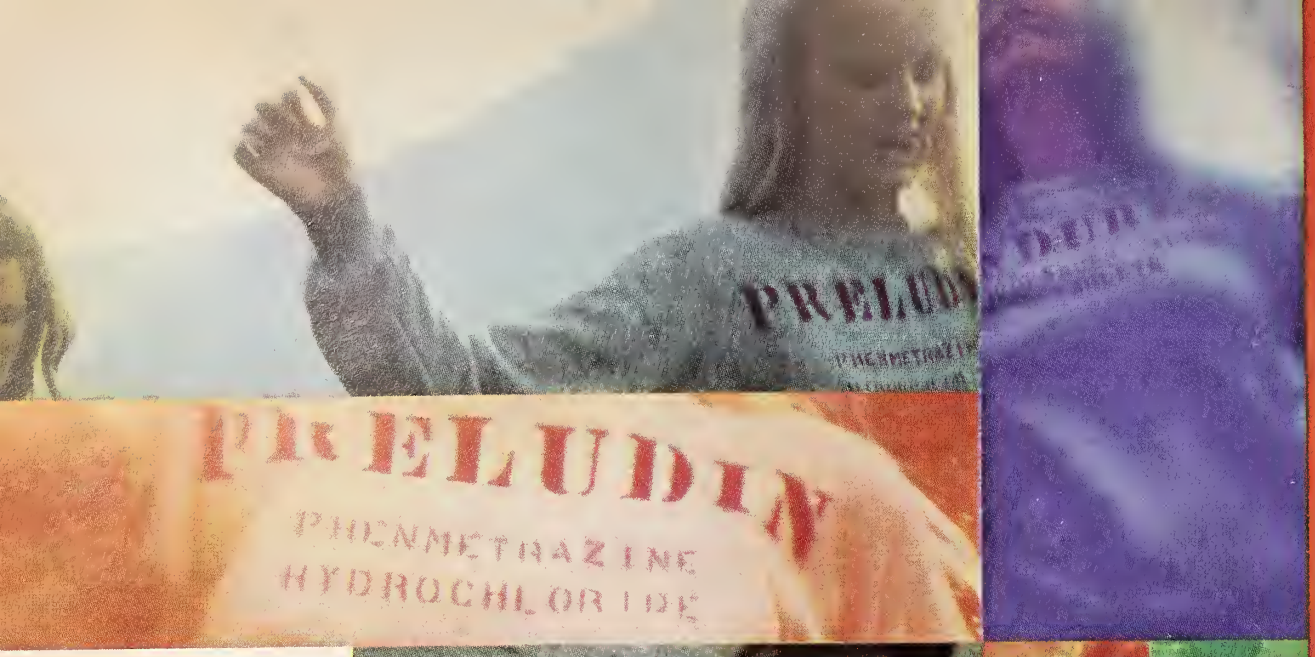
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or here.



ated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

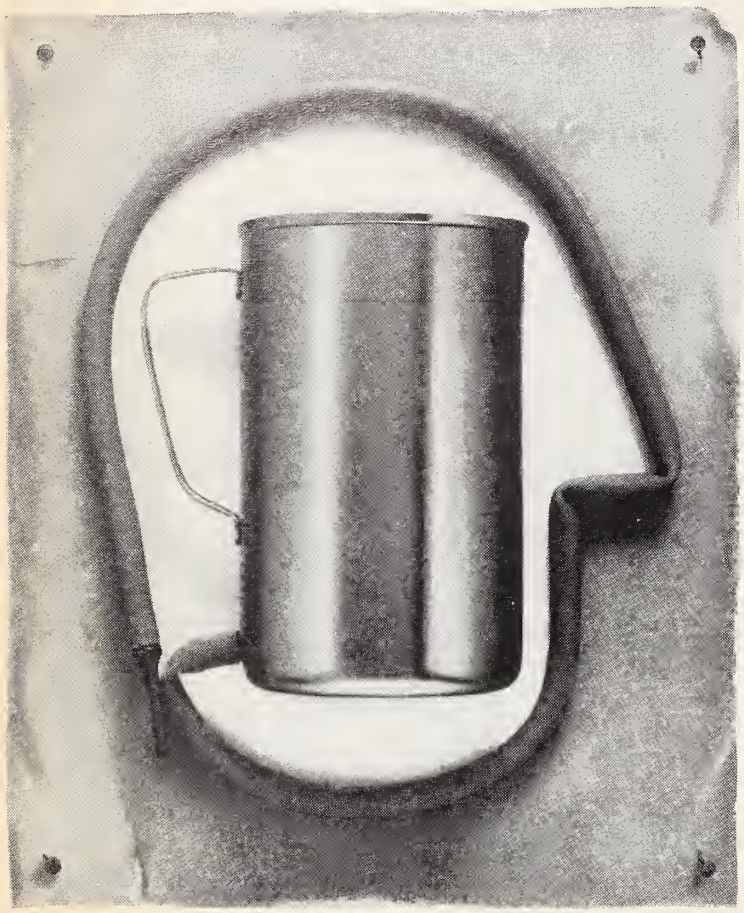
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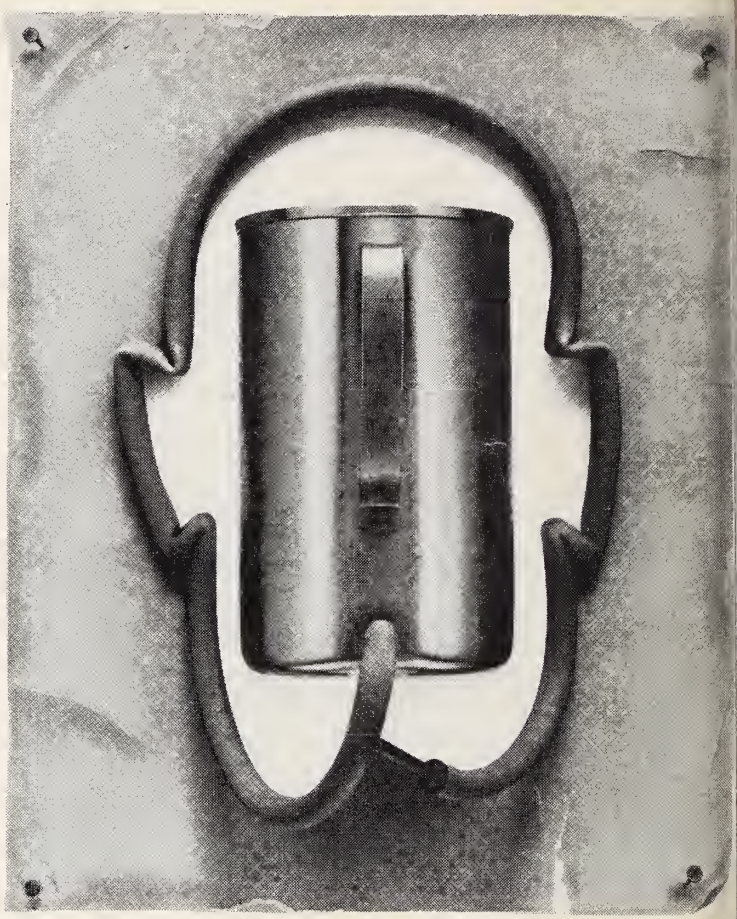
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Aggressive Management of Acute Myocardial Infarction

JOHN T. KIMBALL, M.D.
New York City

Coronary heart disease is the most serious health problem for adults living in the western world. A recent study found that coronary heart disease was the primary cause of death in 40 per cent of males and in 20 per cent of females 20 years of age and older.[1] Acute myocardial infarction is the most lethal complication of coronary heart disease, and it causes an estimated 500,000 to 600,000 deaths in the United States each year. Myocardial infarction results in more deaths in this country than all other causes of death combined.

For over 30 years, hospital mortality from myocardial infarction has been reported to average approximately 35 per cent.[2] Until recently, the many advances in medical knowledge and therapeutics had not produced a significant lowering of this distressingly high death rate.

In the late 1950's, relatively inexpensive cardiac monitoring, defibrillating and pacing equipment became available. Techniques for closed-chest cardiac massage and artificial ventilation were also developed. For the first time it became possible to sustain life following cardiac arrest until definitive therapy could be administered by a cardiac-resuscitation team. Despite these advances, survivals of patients with acute myocardial infarction complicated by cardiac arrest were uncommon even in hospitals with resuscitation teams on call 24 hours per day.[3] It soon became obvious that the most important factor determining death or survival was the elapsed time between the onset of circulatory arrest and the initiation of cardiopulmonary resuscitation (CPR). If more than four minutes elapsed before effective resuscitation was begun, survival was rare.

Dr. Kimball is a clinical assistant professor of medicine at the Cornell University Medical College, and an assistant attending physician at the New York Hospital.

EARLY CORONARY CARE UNIT EXPERIENCES

In 1963, Day,[4] and Brown *et al.*[5] almost simultaneously began to report their experiences with continuous electrocardiographic (EKG) monitoring of patients with acute myocardial infarction in specially designed, equipped and staffed coronary care units (CCU).

The design, instrumentation and operational policies of the first CCU's were quite similar. The physical layout of the three- to four-bed prototype monitoring units allowed direct observation of the patient with continuous oscilloscopic display of the EKG at the bedside and in the nurses' station. The EKG monitors were equipped with visual and audible alarm signals that were activated by tachycardia or bradycardia. A constant intravenous infusion of dextrose and water was maintained to allow the immediate administration of drugs in an emergency. Special carts containing cardiac drugs, defibrillating and pacing equipment were also present in the CCU.

From the beginning, the CCU staff consisted of highly motivated physicians and nurses. The nurses were in constant attendance at all times. They were specially trained to recognize arrhythmias and to initiate CPR as emergency treatment of circulatory arrest. Physicians were usually available on an "on call" basis. The doctors had primary responsibility for administering definitive therapy to control arrhythmias or cardiac arrest. In the early CCU experience, therapeutic emphasis focused on the prompt recognition and treatment of circulatory arrest due to arrhythmia or cardiogenic shock. Prevention and control of serious disturbances of heart rhythm were not stressed initially. Nevertheless it was the general experience that CPR, followed by definitive treat-

ment of cardiac arrest, resulted in salvage of a significant number of patients with myocardial infarction who would have died in the usual hospital environment.

The lessons learned from the early CCU experience were extremely important, for they lead to an evolution of coronary care unit operational policies and practice. It was clearly shown that it was possible to teach interested and intelligent nurses to recognize arrhythmias with a high degree of accuracy. It was also demonstrated that nurses could be taught to perform closed-chest cardiac massage and ventilation techniques safely and effectively. Most important, it was recognized that cardiac arrest rarely occurred without warning and was usually preceded by clinical signs of progressive, severe cardiac decompensation or a life-threatening arrhythmia which, if untreated, often resulted in circulatory arrest. Control of cardiac arrest primarily due to arrhythmia was common, whereas successful treatment of circulatory arrest caused by cardiogenic shock was rare.

NEW YORK HOSPITAL CORONARY CARE UNIT EXPERIENCE

In January, 1965, a CCU pilot study was begun at the New York Hospital-Cornell University Medical Center. A detailed review of our experience managing 250 acute myocardial infarction patients in a CCU has been reported elsewere.[6] Our experience was similar to that reported by other clinical investigators, and it typifies the evolution of operation and therapeutic policies that have significantly lowered mortality in patients with myocardial infarction treated in the CCU.

An analysis of the first 100 consecutive patients treated for myocardial infarction in The New York Hospital's CCU revealed several serious shortcomings in our operational and therapeutic practices.

Initially the indications and modes of antiarrhythmia treatment were not standardized, and the house physician on duty was allowed to use a wide variety and dosage of drugs. Not infrequently, inappropriate drugs were administered in inadequate quantities too late to prevent cardiac arrest due to ventricular tachyarrhythmias or bradyarrhythmias. Consequently, the incidence of cardiac arrest during the first 10 months of 1965 was the same for patients with myocardial infarction treated in the CCU as it was for an identical group of patients kept entirely on regular care. We therefore found it necessary to develop clearly outlined indications and closely supervised routines for the treatment of potentially lethal arrhythmias.[7] The prompt, aggressive use of prescribed drug and electrical techniques was emphasized. In addition, we gave the nurses the responsibility for administering intravenous antiarrhythmic drugs—usually lidocaine or atropine—whenever the indications for treating ventricular ectopic arrhythmias or bradyarrhythmias appeared and a physician was not present in the CCU. Thus, the initiation of drug therapy in appropriate circumstances was speeded by several minutes, and in many instances circulatory arrest due to uncontrolled arrhythmia was prevented.

During our early CCU experience, hospital survival following cardiac arrest occurred too infrequently. A careful review of resuscitation methods and records revealed that an average of 3 minutes elapsed between the onset of circulatory arrest and the administration of definitive therapy—i.e., drugs, defibrillation or cardiac pacing. Technically successful resuscitation occurred in over 50 per cent of the patients with circulatory arrest, but less than one-half of the resuscitated patients survived to leave the hospital. We therefore began to deemphasize the use of CPR as initial treatment, and stressed the rapid initiation of definitive drug or electrical therapy for circulatory arrest due to arrhythmia. A defibrillator was put at each patient's bedside, and the paddles and electrode paste were kept within easy reach. The indications for the insertion of intracardiac pacing electrodes were liberalized. After additional training and study, the CCU nurses were given the responsibility for initiating pacing in cases of cardiac arrest due to a bradyarrhythmia, or for starting defibrillation if circulatory arrest were due to ventricular tachycardia or fibrillation. Since we modified our approach to the treatment of cardiac arrest caused by arrhythmia, every patient has received definitive therapy within one minute of the onset of this otherwise lethal complication.

On reviewing our CCU patient records, we also found that one-third of the hospital deaths occurred after the patient was transferred from the CCU to regular care. Fifty per cent of

these late deaths were due to intractable heart failure or shock, but the remaining late deaths were sudden, unexpected and due to the recurrence of a life-threatening arrhythmia that previously had been controlled in the CCU. In the majority of instances, unexpected late death occurred within one week after transfer to regular care. Since that study, patients with life-threatening arrhythmias have been kept in the CCU for an additional five days after the establishment of complete control of the rhythm disturbance in question.

The results of these changes in operational and therapeutic policies have been very encouraging. In the absence of cardiogenic shock, hospital mortality in CCU-treated patients is now 7 per cent, and deaths are rarely due to uncontrolled arrhythmia. Unfortunately, mortality in patients with cardiogenic shock remains at 75 to 80 per cent, and this high death rate has not been influenced by treatment in the CCU.

CURRENT STATUS AND PHILOSOPHY OF CORONARY CARE

The concept of CCU treatment of acute myocardial infarction has received amazingly rapid world-wide acceptance. Reports from the United States, Great Britain and Canada attest to the lowering of mortality from myocardial infarction by means of routine treatment in a CCU.[8] In January, 1965, there were approximately 20 of these special units in the world. Thirty months later, in June 1967, there were known to be 300 CCU's in the U. S. alone, and at least an equal number in various stages of planning or development. Because this nationwide effort to lower mortality from myocardial infarction represents a phenomenal expenditure of money and professional talent, it is imperative that we make an equally vigorous attempt to achieve maximum benefit from treatment in these units.

A great deal has been learned about coronary care in the last five years, but the most important lesson learned to date is that successful coronary care depends more upon the skill of the professional staff and the therapeutic effectiveness of the operational policies than upon the physical plant or equipment contained therein. Monitoring the electrocardiogram *per se* does not save lives.

Skillful prevention of cardiac arrest has become the trademark of effective coronary care. But prevention of circulatory arrest due to arrhythmia requires a change in the role of the CCU nurse specialist. These well trained nurses are often the only professionals in attendance when life-threatening complications develop. This is particularly true in the community hospital CCU, for physicians are not often immediately available there. It has been shown that nurses can be trained to recognize arrhythmias accurately, and that they can be taught to do a good job of applying techniques for defibrillation and cardiac pacing. It is also clear that the incidence of cardiac arrest due to arrhythmia can be significantly reduced by the prompt intravenous administration of appropriate antiarrhythmic drugs. Therefore, in an attempt to effect a significant reduction in the incidence of cardiac arrest, the participants of a recent National Conference[9] on coronary care units recommended that the CCU nurse be given the responsibility for initiating definitive drug therapy according to indications for, and modes of, antiarrhythmia treatment which have been outlined beforehand by an attending physician.

CONCLUSIONS

The primary aim of coronary care is prevention of cardiac arrest. The prompt application of currently available techniques for the control of arrhythmia can prevent cardiac arrest in all but a small percentage of patients with myocardial infarction in the absence of intractable cardiac decompensation. The most consistently effective approach to the control of arrhythmia requires a heretofore unparalleled sharing of responsibility for treatment between the attending physician and the well trained, experienced CCU nurse specialist. The CCU nurse must be given authority to initiate prescribed drug or electrical therapy rapidly following the onset of specific and predetermined indications for treatment. Application of this philosophy of coronary care has produced an impressive reduction in hospital deaths from acute myocardial infarction.

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Hypopharyngeal Mass Simulating Carcinoma

A Case Report

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Iowa City

AN EXPERIENCED CLINICIAN who sees a patient in the sixth decade of life, with a long history of smoking, a chronic cough and intermittent hoarseness, and who finds upon physical examination that the patient has a large, fungating mass in the hypopharynx usually can make a clinical judgment that will be borne out pathologically. Occasionally, however, such clinical impressions prove erroneous. The following case serves to illustrate this point.

CASE REPORT

A 54-year-old unmarried career woman had developed a left-sided sore throat and dysphagia approximately one week before seeking help. The magnitude of her ailment was such that she stayed home from work, but she did not consult a physician. Three days prior to admission she coughed up a little bright-red blood, and she did the same thing again on the following day. On the day prior to admission she noted melena and hematemesis. When she consulted her physician, he discovered a mass in her throat on physical examination, and referred her immediately.

The patient's medical history revealed 35 years of moderate smoking (less than one pack per day) and, in recent years, increasing amounts of "smoker's cough." Her history was otherwise unremarkable. The review of systems and her social history were negative. She was an occasional light social drinker. The family history revealed that her mother had had a mild case of diabetes in her later years.

The patient's physical examination at University Hospitals was completely within normal limits, except for a mass that was noted in the left pyriform sinus on indirect examination. The mass appeared to arise from the lateral pharyngeal wall and lateral pyriform sinus wall, and it was approximately three centimeters in diameter. The bulk of the lesion displaced the larynx a slight distance medially, but there appeared to be no intrinsic laryngeal mass and all laryngeal movements were normal. Examination of the neck revealed several nontender, firm nodes in the left jugulo-digastric area. The remaining portions of the physical examination were within normal limits.

The patient was admitted to the hospital and underwent a routine work-up, including a chest x-ray, a complete blood count and a urinalysis. The admitting urinalysis showed a 4+ sugar.

HOSPITAL COURSE

The x-rays in addition to the routine chest film consisted of plain PA and lateral films of the neck and a contrast laryngogram (Figure 1). The laryngogram revealed a large mass in the left pyriform sinus. Despite all maneuvers, the sinus failed to fill with contrast material. There was no other laryngeal or hypopharyngeal abnormalities. Direct hypopharyngoscopy confirmed the presence of a large exophytic

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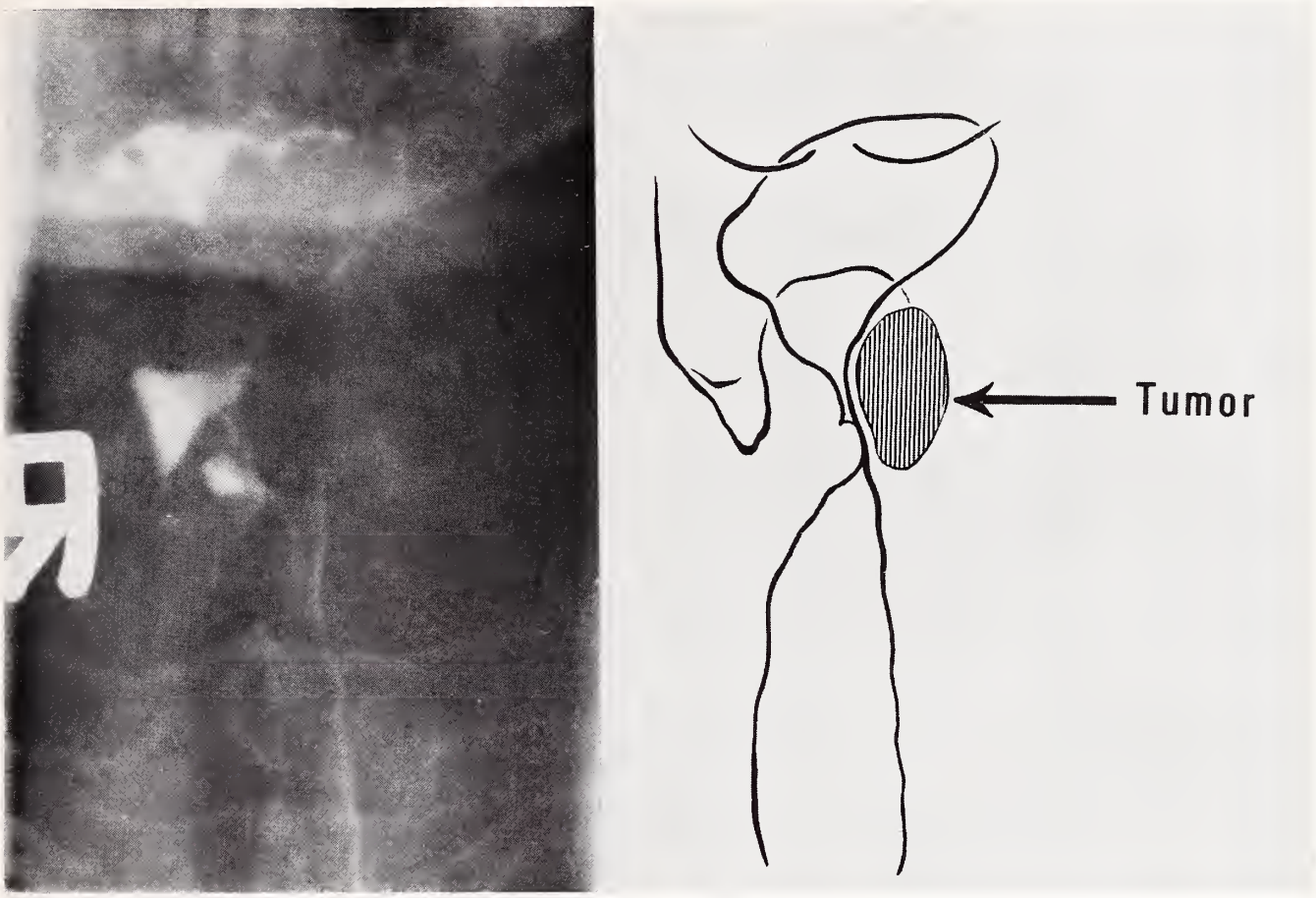


Figure 1. Positive contrast laryngogram, demonstrating mass in left pyriform sinus.

mass in the left pyriform sinus (Figure 2). Again no intrinsic laryngeal lesions were seen, and the mobility of the left arytenoid and true vocal cord were found to be normal. A deep biopsy was taken. Repeat urinalyses confirmed 4+ sugar on each occasion. At this point additional laboratory tests were obtained, including fasting blood sugars on three occasions. The fasting blood sugar was elevated in all studies, the lowest being 290 and the highest 435 mg. per cent.

The laboratory studies showed the chest to be normal, the laryngogram produced the findings already noted, the complete blood count was within normal limits, and the urinalyses were negative except for the sugar. The biopsy of the pyriform sinus mass showed only chronic granulation tissue and chronic inflammation.

There was little doubt that the patient had diabetes mellitus, and she was placed on an appropriate diabetic diet, and insulin was administered according to a sliding scale. Bringing the diabetes under control required approximately three weeks of constant surveillance. During that three-week period two further direct laryngoscopies were performed and biopsies taken, and on each occasion the pathologic diagnosis was chronic granulation tissue

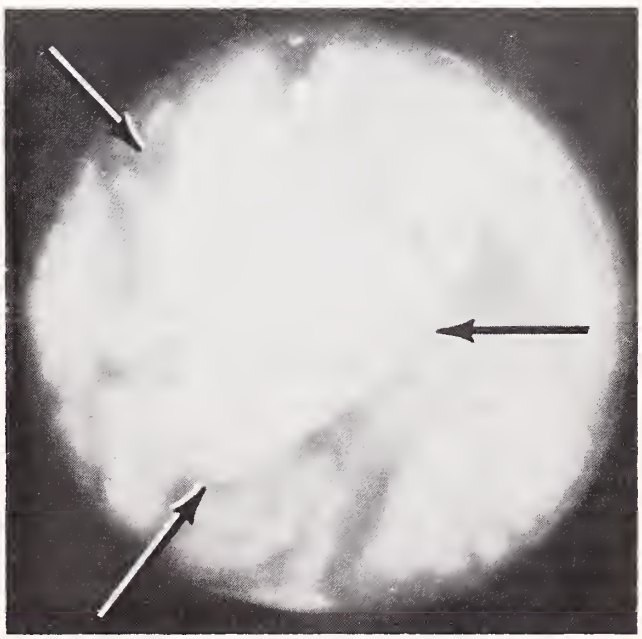


Figure 2. Photograph via direct laryngoscope, showing the mass (arrows) projecting from the lateral pharyngeal wall.

with acute and chronic inflammation. Throughout all this time there was little doubt in the minds of the clinicians involved that in addition to diabetes the patient had a squamous carcinoma of the left pyriform sinus.

However towards the end of three weeks, while the diabetes was beginning to stabilize, it was noted that the mass had begun to decrease in size. After receiving the report on the patient's third biopsy, in which no carcinoma could be seen, we chose to follow the patient closely. Over the next month's time it was noted that the mass in the hypopharynx and the enlargements of the cervical lymph nodes completely disappeared. Throughout that time no specific therapy had been given to the mass, and no antibiotics had been used.

The patient now has been followed for one year, and there has been no recurrence of symptoms.

DISCUSSION

This lesion was a chronic granuloma which appears in the hypopharynx (left pyriform sinus) of a patient in whom diabetes has not been suspected. This lady had no previous history of diabetic problems. It is well known that chronic granulomatous processes do arise in uncontrolled diabetics, and fortuitously the case just reviewed was an example. The history and physical findings completely fooled the examining physicians in that they simulated almost precisely another chronic, slow, progressive lesion, squamous carcinoma in the hypopharyngeal area.

We believe the primary lesson to be learned from this case—aside from the usual nature of the presenting lesion—is that a complete history, a physical examination and appropriate laboratory studies are indicated in *all* such patients, and especially in those suspected of having carcinomas.

Resolution

WHEREAS, The death on January 6, 1969, of Doctor George H. Scanlon has sadly deprived this Board of Medical Examiners of the trustworthy counsel and tireless loyal leadership of a talented and dedicated physician; and

WHEREAS, Both the proud history and future destiny of the Board of Medical Examiners are indelibly influenced by Doctor Scanlon's personal integrity, patient determination and persistent convictions as its Vice-Chairman for the years 1952 and 1957, a member of this Board since 1952 and its Chairman for the year 1954 and since the year 1962; and

WHEREAS, Throughout the pressures and perplexities of his demanding responsibilities and duties, Doctor Scanlon at all times demonstrated a deep regard for and faith in his fellow man, making him a true and dear friend of all who were privileged to know and work with him;

Now, Therefore, Be It Resolved That:

The Board of Medical Examiners hereby records its deep sorrow and sense of loss at the death of Doctor Scanlon, its profound and abiding sympathy for his wife and children in their bereavement, and the personal sadness of each member of this Board upon this painful parting from a nobly gentle man and treasured friend.

Dated at Chicago, Illinois, this 9th day of February, 1969.

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Iowa Rural and Urban Physicians

Similarities between rural and urban physicians are more apparent than their differences, according to an Iowa survey made by Mr. Gary R. Peterson, who was a graduate student in the U. of I. program in hospital and health administration two or three years ago.

Physicians' choices of places to practice, Mr. Peterson found, were influenced by various personal factors, the most significant of which were family ties. Some 41 per cent of the rural practitioners whom he surveyed said they wished to relocate, and half of that 41 per cent indicated a preference for a larger community.

Both rural and urban physicians, he found, work about 11 hours per day, and spend more than 60 per cent of their work week in their offices, and see some 35 patients per day. As might be expected, he reported that the rural practitioner sees slightly more children under 14 than does his urban counterpart. Half of the 2,000-plus full-time M.D.'s in Iowa, his study indicated, are concentrated in 11 urban areas.

Mr. Peterson attempted to get answers to his questions from a 10 per cent sample, and he reported getting a 69.5 per cent return of his questionnaires.

Editorials

REGRET AND APPRECIATION

With the death of Dr. George H. Scanlon, on January 6 at the age of 75, the physicians of Iowa lost one of their best friends, and the Iowa Medical Society one of its most indefatigable workers.



Dr. Scanlon served as a member of the IMS Board of Trustees from 1954 to 1956 and as its chairman from 1956 to 1961. He was president-elect of the Iowa Medical Society in the year 1961-1962, and he served as president in the year 1962-1963.

He was a member of the IMS Committee on Medical Education and Hospitals from 1946 through 1957, and again from 1963 through 1966. He was president of the Iowa Medical Foundation from its inception, in 1963, but he had begun the program of medical-student loans from his own pockets in the very early 1950's and when the students' great need for such help became apparent, in 1952 and 1953, he took the lead in persuading other individual doctors and then the IMS House of Delegates to establish the IMS Educational Loan Fund and to augment its capital. Shortly before Dr. Scanlon's death, the Iowa Medical Foundation was renamed the Scanlon Medical Foundation/Iowa Medical Society. It can be safely asserted that no one in Iowa has done more to provide financial assistance for medical students than Dr. Scanlon.

He served also, for a number of years, as chairman of the Board of Directors of Iowa Medical Service (Blue Shield), and at the time of his death he was chairman of the State Board of Medical Examiners.

To his many friends and admirers, perhaps Dr. Scanlon's greatest contribution has been in a professional capacity to the community of Iowa City and his zealous efforts in behalf of Mercy Hospital in that city. In December, 1968, he was awarded a papal medal in recognition of his services to the hospital and the community.

In keeping with his life of dedication to medicine, Dr. Scanlon served on the hospital ship *Hope,* off the coast of Nicaragua, for several months in 1966.

Surely few men have better exemplified the role of dedicated services to his profession, to mankind, to his Maker.

Good night, good friend,
And flights of angels sing thee to thy rest.

PROBLEMS OF THE MEDICAL EDUCATORS

A recent publication from the Graduate Program in Hospital and Health Administration of the University of Iowa entitled "Medical Education in the United States: A Nation's Call to Serve," by Roger L. Amidon, Ph.D., tells a vivid story of the many phases of a modern medical complex, and gives the reader some insight into the administrative problems that confront those who must operate such an institution. For those who may be critical of the manner in which the University and the College of Medicine are run, a perusal of this study will provide a better understanding of the complexities involved.

Although the primary function of a medical school—and for many years its sole responsibility—was the education of medical school students, its role has been expanded to include a wide variety of interrelated activities. In addition to undergraduate medical education, its work now includes basic research, applied research, professional training at various levels from internship and residencies in the numerous specialties to postgraduate courses for the practicing physician, the schooling and in-service training of paramedical personnel in almost an infinite number of special fields, and an increasing obligation for the provision of health care services to greater numbers of people.

The federal government is calling upon the university medical centers to render optimal medical care to more and more people, as provided by recent legislation. This adds a tremendous administrative burden to an already complex situation. The involvement of the federal government in medical education is evident in the following statistics. In 1958-1959 federal funds paid 30 per cent of medical school expenditures; in 1964-1966 federal funds paid 54 per cent of them. Federal contracts and grants for research constitute 35 per cent of all support received by medical schools, both public and private.

This study by Dr. Amidon, which by the way was his Ph.D. dissertation, lets the reader view the medical center with something approaching the deans' perspective. Though practicing physicians may not be altogether happy with the direction of the prevailing political winds, and may regret both the federal government's growing dominance in the financing of these institutions and the increasing demands that it makes of them, they should seek the understanding that this book provides of the administrative problems which result, and should make a special effort, individually and collectively to reduce those problems and not add to them.

A COMPARATIVE STUDY OF ROUTINE AND INTENSIVE CORONARY CARE

For those who entertain doubts concerning the benefits of a coronary-care unit—whether the effort and expense are warranted—a comparative study of intensive and routine care for such patients should help resolve any questions.*

The University of Colorado Medical Center includes the Colorado General Hospital and the Denver Veterans Administration Hospital. The house staffs of the two institutions are identical, and they provide the medical service coverage on a basis of rotation. Throughout the past two years at the Colorado General Hospital, every patient with a suspected myocardial infarct has been admitted directly to the Coronary Care Unit, and has been monitored for five to seven days. The nurses in the Coronary Care Unit have been trained in cardiac care, and are responsible for initiating resuscitative measures which include defibrillation upon recognition of cardiac arrest. An emergency-call system assures the arrival of two members of a resuscitation team within one or two minutes of an arrest. At the adjacent Veterans Administration Hospital no coronary-care unit is available, and patients with myocardial infarction are admitted to an acute medical ward, or if complicated, to a combined medical and surgical intensive care unit. These conditions provided an opportunity to study two consecutive groups of patients with acute myocardial infarction cared for by identical physicians, and coming from the same geographic area—one group cared for initially in a coronary-care unit, and the other managed without the benefit of such facilities.

All patients admitted to Colorado General Hospital and to the Denver VA Hospital with a diagnosis of acute myocardial infarction over a 17-month period beginning in December, 1965, were reviewed, and their records were critically analyzed. Only patients with unequivocal evidence of acute myocardial infarction were admitted to the study, and only those admitted directly to either hospital with symp-

* Marshall, R. M., Blount, S. G., Jr., and Genton, E.: Acute myocardial infarction; influence of coronary care unit. ARCH. INT. MED., 122:472-475, (Dec.) 1968.

toms of less than 12 hours' duration were included. Patients transferred from other hospitals after any period of hospitalization were excluded. The study groups were restricted to patients in whom the primary cause of hospitalization was acute myocardial infarction, and did not include those in whom the infarction had occurred as a postoperative complication or in the course of some other severe, unrelated disease.

The two groups were considered quite comparable clinically. There were 105 patients from Colorado General Hospital, and 100 from the VA facility. The mean ages of the patients in the two groups were almost the same—63 years in one and 64 years in the other. In the Colorado General Hospital series there were 40 women, but there was only one woman in the VA Hospital group. A separate analysis showed no significant difference in mortalities, between the men and the women. Other series have suggested that the death rate in female patients with myocardial infarction equals or even exceeds the rate in males. A history of angina pectoris antedating infarction in the two groups was elicited in 37 and 33 per cent, respectively. During the first 48 hours, 45 of the patients entering Colorado General Hospital were in congestive failure, and 14 had pulmonary edema and/or shock. Among the 100 patients at the Veterans Hospital, 33 were in congestive failure in the first 24 to 48 hours, and 18 had pulmonary edema and/or shock. Anticoagulant therapy was carried out in approximately half of the patients in both groups.

Electrocardiography demonstrated a prior infarction in 37 per cent of the study group at Colorado General Hospital, and in 28 per cent of those in the Veterans Administration Hospital. Analysis of the deaths in the two groups revealed equal numbers of anterior and inferior infarctions. Only three deaths occurred in patients with either subendocardial or chemical infarctions. There was autopsy confirmation in two of those cases.

Arrhythmias were observed in 80 per cent of the 105 patients monitored in the Coronary Care Unit at Colorado General Hospital. At the Veterans Hospital, where the patients were not monitored but where daily electrocardiograms were done, the incidence of arrhythmias was 58 per cent.

Cardiac arrest occurred in 27 patients in the Colorado General Hospital, and in 32 patients in the Veterans facility. Nearly three-fourths of the arrests occurred during the first week of hospitalization, and the majority took place during the first 72 hours. The arrests in both groups were equally divided between ventricular fibrillation and asystole. Resuscitation, with subsequent release from the hospital, was successful in seven of 19 patients at the General Hospital, but in only one patient out of 25 who experienced arrest during their first week at the Veterans Hospital. Late arrests, after the first week of hospitalization, occurred in eight patients in the former and in seven at the latter institution, and more than two thirds of these occurred after the second week. Resuscitation was successful in none of the patients with late arrest.

Among the 19 cardiac arrests that took place in the Coronary Care Unit, nine occurred in good-risk patients who were without shock or pulmonary edema. Two of those patients had myocardial rupture, but five in this good-risk group were resuscitated and enabled to leave the hospital. In the Veterans Hospital, nine good-risk patients developed cardiac arrest during the first seven days of hospitalization. One patient died of a ruptured myocardium, and of the eight remaining patients, only one was resuscitated to leave the hospital.

Among the patients who were poor risks on admission—those with shock or pulmonary edema—there were 14 at Colorado General, of whom four survived, and there were 18 at the Veterans Hospital, of whom only one survived.

The hospital mortality in the group of 105 patients initially cared for in the Coronary Care Unit at the Colorado General Hospital was 19 per cent, and that rate compares favorably with figures reported from other coronary-care units. The mortality in the group of 100 patients at the Veterans Administration Hospital was 33 per cent. The difference in mortality between the two groups was considered significant.

The authors ascribe the reduced mortality in the group cared for in the Coronary Care Unit to the improved facilities for recognizing and managing ventricular fibrillation occurring during the first week of hospitalization. Al-

though a higher degree of success in preventing all cardiac arrests could not be demonstrated for the Coronary Care Unit, a reduction in the incidence of ventricular fibrillation was suggested. It is thought that as experience with coronary-care units increases, the incidence of ventricular fibrillation in good-risk patients will decline.

From their study, the authors conclude, "It is clear that the Coronary Care Unit is an essential part of the successful management of the patient with myocardial infarction."

CHANGES IN MEDICAL SCHOOL CURRICULA

Many changes in the curricula of the medical schools throughout the nation are taking place, and are being reported in the medical literature. A recent article by John H. Githens, associate dean for student affairs at the University of Colorado College of Medicine, tells of the revisions occurring in the curriculum at that institution, and it should be of great interest to physicians everywhere.* Unquestionably, some of the changes will be enthusiastically endorsed, and others will prompt considerable opposition.

A special effort is being made to interdigitate premedical education and courses in the medical school. A program of granting advanced standing to qualified entering students, and of individualizing placement and counseling has already been undertaken at Colorado. First, at the start of the school year in September, 1967, the entering medical-school freshmen participated in a pretest—a pioneering effort at determining their range of competence in the biologic sciences. The test had been designed by the National Board of Medical Examiners, using questions from the basic-sciences portion (Part I) of the National Board examination. As one might expect, the entering freshmen showed a wide variation in their acquaintanceships with biochemistry and physiology, and the majority were found to possess a significant knowledge of medically oriented genetics and cell biology. Very little proficiency in gross anatomy and neuroanatomy was demonstrated.

The pretest experiment in the fall of 1967 provided the information necessary for a program of individual placement of entering freshmen in the class which started in the fall of 1968. Entering students reported one week before the beginning of classes, and participated in an intensive period of pretesting and counseling to determine individual competence and special areas of interest. This testing and counseling formed the basis for an attempt at developing an individualized curriculum appropriate for each student.

The second major change—and one which will be more controversial than the pretesting program—is a reduction by 30 per cent in the time devoted to courses in the basic sciences taught during the first two years. This means a reduction of these courses to their "core" content, and it is the responsibility of each department to determine the core material which will be presented in the time allotted to its particular subject.

The third change is one which is occurring throughout the country and is a shift to a more flexible curriculum which offers elective and tracks or majors. At Colorado no major courses are scheduled for freshman and sophomore students on Monday, Wednesday or Friday afternoons. This time is available for electives which are offered by all departments, and it is anticipated that many students will choose clinically oriented courses that permit them early contacts with patients. The more flexible program offers the student an opportunity to pursue areas of special interest in greater depth. The senior year is predominantly elective, and the students now plan their courses of study individually with each clinical department. This provides the student an opportunity for specialization, or for intensive preparation in family medicine or general practice, or in areas such as public health or community medicine.

A fourth change in the curriculum and one which is also occurring in the majority of medical schools, has been the introduction of new subjects. In the basic sciences, emphasis is now

* Githens, J. H.: Changing objectives of medical education. ROCKY MOUNTAIN MED. J., 65:25-28, Dec., 1968.

being given to cell biology. In the clinical years, programs are now being offered in community medicine, comprehensive health care and family practice.

Dr. Githens states that the objectives of the present changes in medical education are, *first,* to certify that the student has been prepared academically to proceed with his graduate training. This graduate training may be in a specialty or additional postgraduate work to qualify the individual in family medicine or general practice; *second,* to educate a scientist rather than train a technician; *third,* to give emphasis to self-learning in order to prepare the individual to continue his own education. Many of the changes are in response to a demand of the students for individualization of their educations, that increased consideration be given to the variability of the students' premedical training, to the possibility of earlier patient contacts, and an opportunity for early specialization or for a major in family practice.

According to the Colorado dean, the reasons for the change in objectives of medical education are several. One of the most important reasons is the great progress that has been made in the field of cell biology. It is rapidly becoming a science. The improved educational programs in the biological and physical sciences at the high school and college levels are turning out more highly educated applicants to the medical schools, necessitating individualized programs for the medical students. The fact that 80 per cent of all graduates of medical schools in this country enter into residency training in the various specialties of medicine and surgery calls for an adjustment of the curriculum in order to permit earlier emphasis on a chosen field. It is also pointed out that the social changes in this country and the pressures for improved medical care for all have exerted an influence on medical education and have called for experimentation with new methods for providing medical care to the public, and for the participation of students in this program. The medical students themselves are insisting upon a greater individuality in medical education, and their insistence is definitely influencing the objectives and methods employed in medical schools today.

It is emphasized that it is particularly important for faculty members and practicing physicians to understand the need to revise the objectives of medical education. These changes point up the importance of improved interrelationships and interaction between medical school faculties, on the one hand, and premedical students and their advisors, on the other. The revised, individualized educational program calls for new methods of evaluating student progress and for the development of certification and licensure examinations that are on an interdisciplinary basis, rather than determined by tests on individual subjects. The National Board of Medical Examiners has already planned changes in both Part I and Part II of its test to adjust to the needs of students taking the flexible curriculum which is being introduced in many schools throughout the country.

The author concludes with the statement: "A clear understanding of the changing trend is important to all physicians." He says that the alumni of medical schools can play an important role in bringing about the appropriate changes in licensure procedures and examinations to accommodate them to the changing educational pattern.

Changes in the medical curriculum were inevitable. The vast increase in scientific knowledge and its applications to clinical medicine have created an increasing problem for medical education. The fragmentation of medicine has created additional difficulties. The sociologic inequities of the nation and the pressures of the federal government for the ultimate in medical care for all citizens have added to the demands upon the medical schools. The curriculum as changed will not be static. There will be revisions of the revised programs, brought about by conflicting needs and other forces.

It is hoped that the premedical education will not be restricted to circumscribed fields in the biologic and physical sciences, but will permit the student ample opportunities for the study of the humanities, so that he may acquire skill in the use of the English language and so that he may enrich his entire life with an interest in history, the arts, and other cultural pursuits.

A reduction of the time devoted to the basic sciences is an unfortunate concession to the demands of the era. There is no rapid road

to the mastery of medicine, and each successive step up the pyramid of knowledge is based on the previous step. Early exposure to clinical medicine without a sound foundation in physiology and pathology appears to be putting the cart before the horse. The apparent haste to let the medical student select a special field of study before he has had a reasonable exposure to the various fragmented fields of medicine appears unwise. The aspiring surgeon may have no surgical aptitude whatever, and he may be temperamentally unsuited for such a role.

May the medical educators make haste slowly and wisely!

SULFAMYLON CREAM AS A PREVENTIVE FOR BURN-WOUND SEPSIS

A recent report from the U. S. Army Research Unit, Brooke Army Medical Center, Fort Sam Houston, Texas, on the successful control of burn-wound sepsis is one which should be enthusiastically received by physicians who are called upon to treat seriously-burned patients.* The new method of treatment has been carried out for the last three years, and consists of the topical application of a 10 per cent suspension of mefenide (Sulfamylon) in a water-soluble cream.

According to Moncrief and associates, at the Burn Center, burn-wound sepsis is characterized by the proliferation and penetration of 100,000 or more micro-organisms per gram of tissue, and an extensive, active lymphatic invasion which may or may not be associated with generalized sepsis and widespread organ involvement. It was the cause of death in 60 per cent of the patients who died at the Burn Unit prior to 1964.

The efficacy of the Sulfamylon burn cream was first tested in the laboratory. There it almost completely eliminated mortality in a model closely simulating burn-wound sepsis which, untreated, resulted in 90 to 100 per cent mortality. In the clinical use of the Sulfamylon cream, it is applied with a sterile-gloved hand in a thin layer over the entire burn wound, twice daily. The patient is placed in a Hubbard tank, the burn cream is cleansed from the wound, and gentle debridement is carried out to a point of bleeding or pain. Following the care in the Hubbard tank, the burn cream is applied, and a second application is made 12 hrs. later.

The customary initial care consists of gentle cleansing and debridement of the burn, correction of fluid and electrolyte balance and relief from pain. These are fully as important as they are in the conventional treatment of burned patients.

Skin grafting plays an important part in the management of the burned patient treated with burn cream. When the eschar separates and is removed from the burn wound, the open areas are covered with homograft skin, which serves as a temporary dressing. This is changed every five days or more often, depending upon the rapidity of appearance and the amount of purulent material beneath the grafts. The topical application of the Sulfamylon cream is continued on the eschar adjacent to the homografts, in this way serving to control infection in these areas. When it is seen that there is general adherence of the homografts, the wound can be covered with an autograft. The authors assert that this can be done with confidence of an excellent "take" in 95 to 100 per cent of cases.

The physicians at the Burn Center have found that patients treated with burn cream in the manner described have experienced spontaneous healing of many burns which, when first seen, appeared waxy-white and previously would be regarded as third-degree burns and to require grafting. It is through the prevention of bacterial invasion and destruction of deeper epithelial tissues that these tissues survive and resurface the wounds.

Unfortunately the burn cream has been found to have what the authors describe as "nuisance effects," but none of these have seriously hampered its use. About 5 per cent of the patients develop a hypersensitivity to the cream, manifested by a morbilliform rash, usually during the second week of therapy. In mild cases an antihistamine is given, and the treatment can

* Pruitt, B. A., O'Neill, J. A., Moncrief, J. A. and Lindberg, R. B.: Successful control of burn-wound sepsis, J.A.M.A., **203**:150-152 (March 18) 1968.

be continued. In the more severe reactions, however, the burn cream must be discontinued and another form of topical therapy used.

In some patients the acid pH and the hygroscopic quality of the cream may cause considerable discomfort, but this usually lessens during the second week. Mild analgesia may be required to alleviate this condition. The cessation of discomfort correlates well with the healing of second-degree burns.

In about one out of 10 patients with burns in excess of 30 per cent, some manifestations of metabolic acidosis will develop. This constituted a problem only in patients with pulmonary complications, and it was usually corrected by temporarily discontinuing the topical applications or reducing their frequency. In the authors' experience it was occasionally necessary to administer sodium bicarbonate intravenously and to provide ventilatory assistance in severe acid-base disturbances.

It is pointed out that in some cases there is a delay in the separation of the eschar, and this may necessitate operative excision relatively late in the patient's post-burn course. If daily wound care is properly carried out, this condition is uncommon.

During the period from January 1, 1964, to December 31, 1966, a total of 630 burn patients were treated by the topical use of Sulfamylon cream at the Brooke Army Medical Center. When compared with 290 patients who had been treated by conventional methods during the previous two years, there was a striking reduction in mortality from all burns involving less than 30 per cent of the body surface, and a significant reduction in the mortality from burns covering between 30 and 60 per cent. In burns of 20 to 30 per cent, the mortality was reduced from 8 per cent to 1 per cent; in those involving 30 to 40 per cent, the reduction was from 47 per cent to 11 per cent; in patients with burn areas between 40 and 50 per cent, the death rate fell from 58 to 35 per cent; and in those in whom the burns involved 50 to 60 per cent of the skin surface, the death rate was reduced from 78 per cent to 46 per cent. There was no significant reduction in the mortality from burns covering above 60 per cent of the total body surface attributable to the use of the new method.

Even more striking than the reduction in the percentage of deaths was the reduction in the number of deaths caused by burn-wound sepsis when the two groups were compared. Among the 630 patients receiving topical chemotherapy, deaths from burn-wound sepsis occurred in 10 per cent. Contrastingly, in the group of 290 patients treated by conventional methods, deaths ascribed to burn-wound sepsis occurred in 59 per cent. There were six patients receiving topical therapy who died and showed only focal wound changes histologically, in contrast to the generalized involvement which was characterized prior to the use of topical chemotherapy.

From their experience with Sulfamylon burn cream, the Army physicians listed what they considered its desirable characteristics and properties: (1) It is stable over a wide temperature range, and it is not inactivated by pus or tissue fluid. (2) It diffuses rapidly through the eschar, does not appear to be stored in any visceral organ for a prolonged period, and is excreted by the kidneys without any problem of precipitation in the tubules. (3) It is not cytotoxic. (4) It permits wounds to be treated by an open technique which facilitates inspection and physical therapy. (5) The preparation is easily applied and easily removed from the wound. (6) No anaerobic infections occurred in the patients treated with this preparation.

The management of a seriously burned patient is one of the most challenging problems that confronts the practicing physician. The report from Brooke Army Medical Center on the use of Sulfamylon burn cream indicates significantly improved results from its use. It appears that it can and will be equally effective in civilian practice.


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THE TEEN-AGE SMOKER

A startling statement in a recent article about children who smoke cigarettes, by Dr. Daniel J. Pachman, should shock physicians into making a concerted effort to educate youth concerning the hazards of this pernicious habit.*

He makes the following statements, based on data compiled by the Statistical Research Section of the American Cancer Society: "Eighty years ago, a male teenager had about one out of 500 chances of ultimately dying of cancer of the lung in adult life, whereas today if the present rate continues, one of seven male youths will succumb to this neoplasm. These startling figures still remain valid even though the changing age composition of the population is considered."

Pachman also tells of a survey conducted by the Illinois Division of the American Cancer Society in schools of a number of southern Illinois counties in November, 1967. This study revealed that among students in the fourth, fifth and sixth grades, 53 per cent had already experimented with smoking cigarettes, and five per cent of the boys were already regular smokers. At the twelfth grade level, 40 per cent of the boys were confirmed smokers. A similar survey in Chicago showed that 44 per cent of the boys and 28 per cent of the girls in the sixth grade had already tried smoking, and at the twelfth grade level 42 per cent of the boys and 25 per cent of the girls were smokers.

Another recent survey, in Rockford, Illinois, showed a significant increase of smokers by girls in the ninth and tenth grades of high school, and showed that the smoking behavior of both boys and girls tended to follow very closely their fathers' smoking habits. An earlier survey in Portland, Oregon, also demonstrated the influence of parental smoking habits upon children.

When it is realized that more than 55,000 persons die from carcinoma of the lung in this country each year—and this is more than the number of our young men who have been killed in Vietnam—it is clear that this constitutes a serious public health problem. Dr. Dwight E. Harken, of Harvard, speaks of smoking as "the masochistic massacre," and says that "despite the use of all the new diagnostic techniques combined with the currently available treatment embracing resection, radiation and chemotherapy, only about one in every 20 patients can be salvaged, and only about five per cent of those presenting with bronchogenic cancer will survive five years."**

Dr. Harken asserts emphatically that, of the various diseases which smoking can cause, at least cancer of the lung constitutes an epidemic that is not responding to available diagnostic and therapeutic measures. He contends that the cigarette smoking must be treated as a problem in preventive medicine, and maintains that all of the diseases caused by cigarette smoking could be curbed if people *just did not start smoking.* The solution calls for epidemiologic methods—PREVENTION!

The relationship between cigarette smoking and carcinoma of the lung, chronic bronchitis and emphysema are accepted with very little question. The relationship between cigarette smoking and cardiovascular disease is doubted by some; however numerous studies present convincing evidence of a greatly increased risk in those who smoke. Some 100,000 doctors have stopped smoking, and they must have had compelling reasons for stopping. For those who question the influence of smoking on cardiovascular disease, an inquiry addressed to a cardiologist should resolve all doubt.

Effective preventive measures must be initiated early, and they obviously must begin at the grade-school level and be given greater emphasis at the junior-high and high-school levels. Aggressive participation by physicians is necessary if any significant results are to be obtained.

A report by Dr. Daniel Horn, of the U. S. Public Health Service, tells us that there has been a recent reduction of 9 to 10 per cent in teen-age smokers. This would suggest that the campaign is beginning to show a beneficial effect.

* Pachman, D. J.: Fight against smoking in children. ILLINOIS MED. J., 134:625-631, Nov., 1968.

** Harken, D. E.: Smoking—masochistic massacre. DIS. CHEST. 54:445-449, Nov., 1968.

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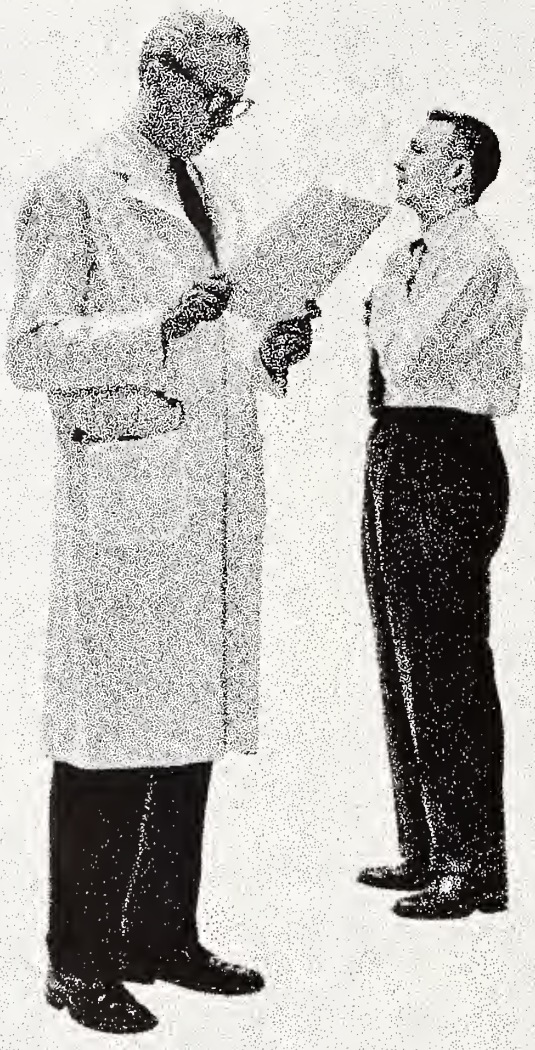
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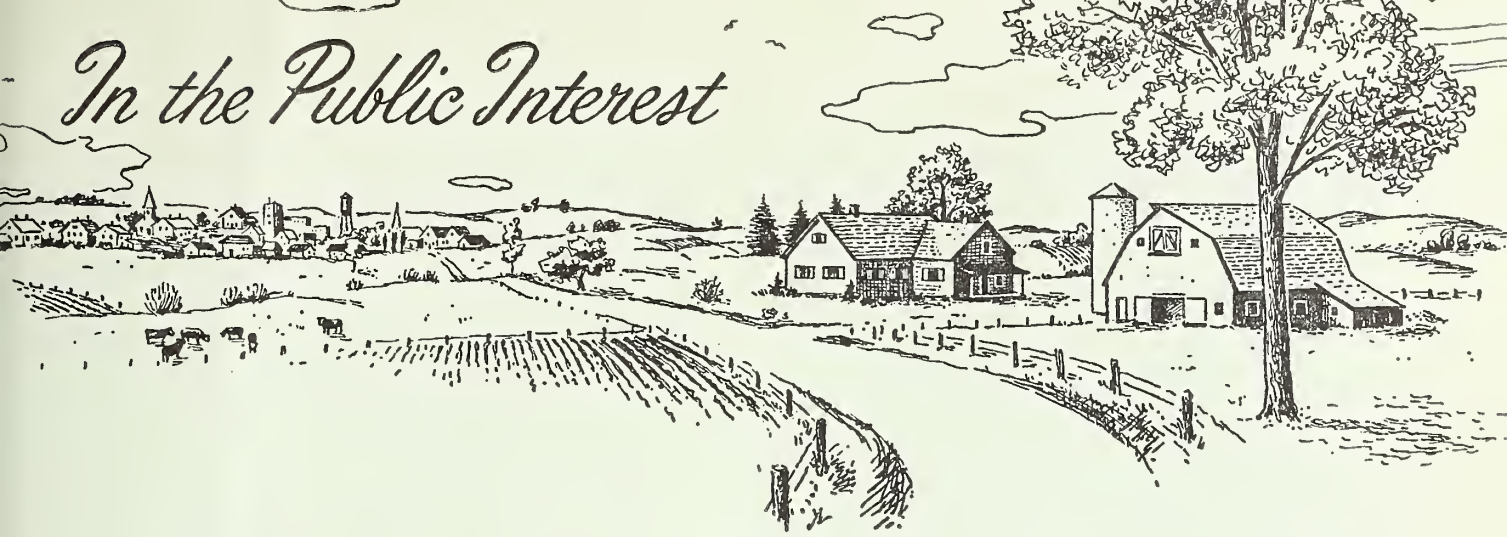
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In the Public Interest



A 1969 Report of the Federal HEW Department Condemns Chiropractic as Useless or Worse

From last month's article in this space, you may remember the statement: "A body of impartial, authoritative information is becoming available about chiropractic."

One important item in that body of information is a report entitled INDEPENDENT PRACTITIONERS STUDY which was issued by the U. S. Department of Health, Education and Welfare as recently as two months ago. As one of the principal recommendations in that report, the HEW Department has warned Congress to continue excluding chiropractors from the Medicare program.

The Study was undertaken in response to an order from the Ninetieth Congress of the United States to determine what additional health care practitioners, if any, should receive federal payments for services provided to Medicare beneficiaries. Chiropractors had not been, and are not now, among the licensed practitioners permitted to participate in the Medicare program.

PERSONNEL, METHODS AND SCOPE OF THE STUDY

The following—in the words of the report itself—is an outline of the data-gathering techniques employed and the areas explored: "The professional organizations of the practitioners being studied were asked to submit basic information about their professions, including: historical development of the profession; definition and clinical and scientific bases of the practice; education and training; relationships with other health care professionals and with health care institutions: and the needs of the elderly for the services of the practitioner.

"Forty-eight consultants were appointed to examine the collected material and present their opinions in an advisory capacity. Twenty-two were members of an *ad hoc* consultant group established to advise on overall aspects of the study, and 22 served on five specialty expert review panels, composed of three to eight members each. Consultant appointees were sought for their lack of bias and their knowledgeability; none served as a representative of any health profession with a vested interest in the conclusions to come from the study. . . .

". . . Areas explored included the practitioner's ability to institute proper treatment, to recognize problems beyond his competence, and to make a proper referral. Also included was an analysis of the validity of the diagnostic or evaluation and treatment methods utilized by the various disciplines."

HIGHLIGHTS OF THE HEW FINDINGS

The HEW Department concluded, following its detailed study, that chiropractors are not satisfactorily trained to diagnose or treat human diseases. It also declared that chiropractors base their practice on ideas which scientists cannot accept.

Chiropractors believe that disease—every disease—is caused primarily by a dislocation of one or more vertebrae, which they call "a subluxation." They contend that "a subluxation" interferes with the functioning of the human nervous system, and in turn impairs the body's ability to maintain health. "A subluxation," reportedly, "can be corrected by an adjustment or dynamic thrust to the appropriate vertebrae."

The HEW report issued just a few weeks ago declares: "There is no valid evidence that subluxation, if it exists, is a significant factor in disease processes. Therefore the broad application to health care of a diagnostic procedure such as spinal adjustment is not justified."

The HEW report continues: "Chiropractic methods are derived from its philosophy involving the role of the Innate in the curative process, and of subluxations as the ultimate causal factor in disease. The result is an approach quite different from that of conventional medicine and osteopathy. . . .

"Chiropractors . . . believe that the subluxation is the most significant causal factor in disease because they feel that it interferes with normal nerve function. However, no evidence has been found in the literature, nor has any information been submitted to this Study to prove that a subluxation, if it exists, is a cause of disease."

THE EDUCATIONAL INADEQUACIES OF CHIROPRACTORS

In health care, as in many other fields, the abilities of practitioners to provide good quality service can be correlated with the quality of their education, and with the quality and extent of the research upon which that education is based. The HEW report which was presented to the U. S. Congress in January of this year asserts: ". . . The inadequacies of chiropractic education, coupled with a theory that deemphasizes proven causative factors in disease processes, proven methods of treatment, and differential diagnosis, make it unlikely that a chiropractor can make an adequate diagnosis and know the appropriate treatment, and subsequently provide the indicated treatment, or refer the patient.

". . . Significant shortcomings in chiropractic education include: (1) lack of inpatient hospital training; (2) lack of adequately qualified faculty; (3) extremely low admission requirements for students; (4) lack of a nationally recognized accreditation body; and (5) such dissension within the profession that two separate accreditation programs must be maintained."

The INDEPENDENT PRACTITIONERS STUDY then asserts: "The lack of research is due to a number of factors. Certainly the lack of funds is one. However, considering the qualifications of the faculties of chiropractic schools, it seems unlikely that most faculty members, with the qualifications listed, would have the capability to undertake basic research. Another major reason for the lack of research is that the chiropractic philosophy has led to a deemphasis of research, since the chiropractor believes he already knows 'basic truths and principles' and since to be 'Innate' is to be beyond finite knowledge."

MOST IMPORTANTLY, CHIROPRACTORS KEEP PATIENTS FROM GETTING WORTHWHILE THERAPY

The HEW Department gives some significant reasons for doubting the ability of chiropractors to serve as a patient's "point of entry into the health-care system."

Despite the obvious limitations of their theory that all human ailments have a single cause and respond to a single method of treatment, chiropractors apparently attempt to treat anything and everything. The HEW report tells of a survey made in 1963 for the American Chiropractic Association in which 85 per cent of the chiropractors who replied said they treated musculoskeletal problems most frequently, but then more than 81 per cent of them indicated that conditions *other* than musculoskeletal ranked among the 10 ailments that they undertook to treat most frequently. Those complaints, and the percentages of chiropractors who said they treated them, were as follows: headache 98; sinusitis 94; constipation 94; high blood pressure 93; common cold 92; asthma 89; bronchitis 86; low blood pressure 86; hay fever 83; and gallbladder disease 82. The HEW report comments: "The method of obtaining these diagnoses is unknown."

The report then declares: "Patronizing chiropractors is undesirable because appropriate treatment could be delayed or prevented entirely; appropriate treatment might be interrupted or stopped completely; and the treatment offered could be contraindicated. All treatments have some risk involved with their administration, and inappropriate treatment exposes the patient to this risk unnecessarily."

THE HEW REPORT CITES A DECISION OF THE U. S. SUPREME COURT

The HEW report points out that initially the state laws licensing chiropractors were intended to impose restraints upon them, not to grant them freedoms. The states must not forget that initial objective!

Louisiana is one of just two states in the remarkable situation of never having passed a chiropractic licensure act. The HEW report calls attention to a case which reached the U. S. Supreme Court in 1965, in which chiropractors had attempted to force Louisiana to license them:

"In 1965 the Court ruled that the equal protection clause of the Fourteenth Amendment to the U. S. Constitution does not bar a state from requiring chiropractors to have medical school degrees. . . . It upheld a lower court ruling which said: 'If the education obtained in chiropractic schools does not meet the standards of . . . the U. S. Office of Education, it may well be that the Legislature of Louisiana felt that in the public interest a diploma from an approved medical school should be required of a chiropractor before he is allowed to treat all the human ailments chiropractors contend can be cured by manipulation of the spine.' "

CONCLUSIONS OF THE HEW DEPARTMENT

Here are the conclusions of the Health, Education and Welfare Department's Study: "Chiropractic theory and practice are *not* based upon the body of basic knowledge related to health, disease and health care that has been widely accepted by the scientific community. Moreover, irrespective of its theory, the scope and quality of chiropractic education do *not* prepare the practitioner to make an adequate diagnosis and provide appropriate treatment. Therefore, it is recommended that chiropractic service *not* be covered in the Medicare program."

University Hospitals DRUG LETTER

Antirabies Prophylaxis (Treatment) —Recommended Procedures

FRANKLIN P. KOONTZ, Ph.D.

RABIES HAS BEEN KNOWN as a specific disease entity since antiquity, and even today, in our supposedly affluent civilization, thousands annually die of rabies. It is true that deaths from rabies rarely occur in the United States, but there always are exposures and a consequent possibility of the disease. There are approximately 2.5 x 10^6 animal-bite incidents annually in the United States, but only about 30,000 individuals are thought to require antirabies treatment. Obviously, therefore, not all biting episodes necessitate rabies prophylaxis. The question of "to treat or not to treat" can be decided only by the clinician, and he must utilize the following criteria in arriving at his decision: (1) the type of animal involved; (2) the provocation that may have brought about the biting incident; (3) the subsequent availability of the animal (killed, escaped or confined); and (4) the nature of the exposure.

EVALUATION OF BITING INCIDENT

Each of the above criteria must be evaluated completely before the need for treatment is settled. Let us first consider the type of animal involved. Does it belong to a species in which rabies has been reported, or is it one that seldom, if ever, occasions an administering of specific antirabies prophylaxis? Small wild rodents such as mice, moles, shrews, chipmunks, etc. are not normally considered to be in the rabies cycle. In other words, these animals are invariably killed at the time of their exposure to a rabid animal. Pet rodents such as hamsters, guinea pigs and white mice are also disregarded as rabies threats. Thus small rodents, wild and domestic, although they are involved in a large percentage of biting incidents, have been uniformly rabies-negative when tested in the laboratory. Approximately 3,300 such animals have been examined over the past quarter century in Iowa, and all have been negative.

The animals just discussed comprise one extreme; the others such as the skunk and the bat are regarded at the opposite end of the spectrum, and they must be considered rabid until proved otherwise by laboratory procedures. It should be emphasized that the United States Public Health Service recommends specific antirabies prophylaxis in any bona fide bat-bite incident. The reasoning is simply that bats can carry the virus in their salivary glands without its being demonstrable in their central nervous systems.[1] Therefore if the salivary glands have not been examined, the bat must be considered rabid. (Salivary glands are not routinely examined in the Iowa laboratories.) Other species of animals fall somewhere in between those extremes and should be judged individually.

The second question to be deliberated is whether the attack was provoked or unprovoked. A biting incident that occurred during an attempt to feed or handle an apparently healthy animal should be regarded as provoked. Provocation can also be assumed if the offending animal has been injured in some manner. "Unprovoked" means that there was no justification for the animal's having attacked and bitten the individual. The delineation of provocation becomes especially difficult when one is dealing with wild animals.

The condition of the animal after the biting incident is very important to the decision about the need for treatment and the extent of treatment. If the offending animal is of a species in which rabies has been reported, and if the animal has escaped, then it must be considered rabid. Conversely, domestic pets should be confined and specific antirabies prophylaxis initiated or discontinued, depending upon the condition of the animal during the holding period (7-10 days). Since a wild animal usually cannot be confined and observed, it should be killed and the head submitted to the State Hygienic Laboratory, Iowa City, or to the Veterinary Diagnostic Laboratory, Ames, for rabies examination. In some instances—especially bites by skunks, foxes and other wild carnivores—treatment should be initiated immediately and discontinued only if the laboratory test is negative. In other cases treatment can be withheld until the laboratory results are available.[2] Which of the two courses one follows depends upon the type of animal involved and upon the severity and location of the bite. (See post-exposure guide.)

The last condition to be considered is the nature of the exposure. Was the wound a scratch or a bite? Was the exposure mild or severe? Where on the body did it occur? The answers to these questions assist the clinician in determining which type of antirabies prophylaxis should be administered. A severe biting incident is one in which there are multiple or deep puncture wounds, or one in which the patient has been bitten about the head, neck or hands. A mild exposure consists of scratches, lacerations or sin-

Dr. Koontz is the assistant director of the State Hygienic Laboratory and an assistant professor of preventive medicine and environmental health. This article appeared initially in the December, 1968, issue of DRUG LETTER, a monthly intramural publication of University Hospitals, Iowa City. It is reprinted here at the suggestion of the Clinical Pharmacology Committee at the University, and with the permission of the author.

gle bites on areas of the body other than the head, neck and hands. Saliva contamination of previously existing abrasions belong in the mild category. Severe exposures invariably require the administration of hyperimmune antiserum prior to the vaccine. (See post-exposure guide.)

TREATMENT

Local:

Local treatment of the wound is of prime importance in all biting incidents. The recommended first-aid treatment consists of copiously flushing the site with water, or preferably with soap or detergent and water. Experimentally, this procedure alone has reduced the incidence of rabies in test animals.

Treatment by a physician, where indicated, should include adequate cleansing of the wound with a 20 per cent soap solution and/or the application of a quaternary ammonium compound (benzalkonium chloride, etc.) or another substance with a proved lethal effect on rabies virus (40-70 per cent ethanol, thiomersal or tincture of iodine). Although some people advocate the judicious use of concentrated nitric acid, there is no evidence that this procedure is more effective than soap or quaternary ammonium compounds.[2] If possible, bite wounds should *not* be sutured immediately.

The hyperimmune rabies antiserum (horse) has been shown to be highly effective in preventing experimental rabies, and its use should be considered in all cases of human exposure satisfying the aforementioned criteria. If the serum is warranted, a part of the dose should be infiltrated into the tissues around the wound whenever feasible.

GUIDE FOR SPECIFIC POST-EXPOSURE ANTIRABIES TREATMENT (ADAPTED[1, 2])

Nature of Exposure	Status of Biting Animal At Time of Exposure	During 10-day Observation Period	Recommended Treatment
No lesions; indirect contact only	rabid	———	None
Licks			
(1) Unabraded skin	rabid	———	None
(2) Abraded skin scratches and abraded or unabraded mucosa	(a) healthy	clinical signs of rabies or proved rabid (laboratory)	Start vaccine at first sign of rabies in the biting animal.
	(b) signs suggestive of rabies	healthy	Start vaccine immediately; stop treatment if animal is normal on fifth day after exposure.
	(c) rabid, escaped, killed or unknown	———	Start vaccine immediately.
Bites			
(1) Mild exposure	(a) healthy	clinical signs of rabies or proved rabid (laboratory)	Start vaccine at first sign of rabies in animal: (serum first, if applicable)
	(b) signs suggestive of rabies	healthy	Start vaccine immediately; stop treatment if anmial is normal on fifth day after exposure.
	(c) rabid, escaped, killed or unknown	———	Start vaccine immediately.
	(d) wild (jackal, fox, bat, wolf, etc.)	———	Serum immediately, followed by a course of vaccine.
(2) Severe exposure (multiple or face, head or hand bites)	(a) healthy	clinical signs of rabies or proved rabid (laboratory)	Serum immediately; start vaccine at first sign of rabies in the biting animal.
	(b) signs suggestive of rabies	healthy	Serum immediately, followed by vaccine. Vaccine may be stopped if animal is normal on fifth day after exopsure.
	(c) rabid, escaped, killed or unknown or wild (jackal, fox, bat, wolf, etc.)	———	Serum immediately, followed by vaccine.

Sensitivity to the serum should be determined prior to its use.

The application of ordinary antiseptics and/or antibiotics to control bacterial infections should follow the local treatment recommended above. Tetanus prophylaxis should be considered in all biting incidents.

SPECIFIC ANTIRABIES TREATMENT

If specific antirabies prophylaxis is warranted, the patient should be given the vaccine, or serum plus vaccine, depending upon the specific circumstances, as soon after the biting incident as possible. It should be emphasized that deleterious reactions are possible following the administration of either the vaccine or the hyperimmune serum. Obviously also, the combined treatment is more expensive.

Reactions to the antirabies horse serum occur with the same frequency as with other sera of animal origin. Prudent history-taking and the intradermal or the ophthalmic test for sensitivity will reduce the risk of an immediate anaphylactic reaction. If the patient is sensitive, serum from another species should be used if possible. If not, the usual desensitization procedures should be employed.

The 15-25 per cent incidence of serum sickness from the heterologous horse serum can be reduced by administering a large dose of an antihistamine drug with the serum and subsequent sustaining doses. Patients with familial histories of connective-tissue disease such as lupus or chronic arthritis may require special consideration.

It is recommended that the hyperimmune serum be administered as promptly as possible after the exposure. The dose of serum is 1,000 international units per 40 lbs. of body weight. Some of the dose should be infused about the wound, and the remainder should be administered intramuscularly. If more than 24 to 72 hrs. have elapsed, the dose should be doubled or trebled.[3]

The active immunization program with duck-embryo vaccine (DEV) should be initiated as soon after the exposure as possible. This consists of 14 daily doses of DEV administered subcutaneously. If the patient has received hyperimmune serum, booster doses of DEV should be given on the tenth and the twentieth day after completion of the vaccine schedule. This is recommended as a means of overcoming the suppressive effect of the hyperimmune serum.

For severe exposures, 21 doses of vaccine are recommended. These may be administered as 21 daily injections, or as 14 doses given during the first seven days (either in two separate injections or in a double dose daily), and the remaining doses administered singly during the next seven days. If hyperimmune serum was given, booster doses of DEV should be administered as outlined above.

PRE-EXPOSURE PROPHYLAXIS

The low frequency of reactions to it has made DEV practical to recommend for the pre-exposure immunization of persons in high-risk groups such as veterinarians, animal handlers and dieners, whose vocations require frequent exposure to wild and domestic carnivores. If such pre-immunized individuals with demonstrable antibody are actually exposed to rabies, then a modified regimen of five doses of vaccine plus a booster dose 20 days later is recommended.

DISCUSSION

Rabies vaccine derived from virus grown on central-nervous-system tissue (Semple or Fermi) stimulated antibody formation against brain tissue as well as rabies. This phenomenon was responsible for the induction of the isoallergic encephalomyelitis associated with this type of vaccine. In an attempt to eliminate these post-vaccinal complications, the duck embryo vaccine (DEV) was developed. Although the incidence of post-vaccinal complications has been reduced they have not been eliminated, and occasional systemic reactions have been reported.[4, 5] It should also be noted that "treatment failures" have occurred with DEV.[6-9] However it should be emphasized that in some cases hyperimmune antiserum was not administered in conjunction with it.[6, 9] The foregoing, plus the fact that the "encephalitis-inducing factor" is not present in the nervous tissues of many species at birth, but appears with maturation, suggested the use of suckling-animal brains in the preparation of the vaccine. This type of vaccine, besides being free of the "encephalitis-inducing factor," has the advantage of higher potency and an apparently greater antibody response. There has been some limited testing of suckling-mouse brain and suckling-rat brain vaccines, but the production of such vaccines is fraught with practical problems. Until safe and completely effective vaccines are produced, the recommended regimen will consist of DEV and hyperimmune antirabies serum when applicable.

Immunization of domestic animals (dogs, cats) has markedly reduced the incidence of rabies in urban areas. Now rabies is a problem more closely associated with wild rather than domestic animals. This is the basis for classifying the bites of skunks, foxes, jackals, etc. as severe exposures requiring special consideration.

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2. Fifth Report of the WHO Expert Committee on Rabies. Geneva, WHO Technical Report Series No. 321, 1966.
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(Continued on page 233)

President's Page

"There are men and classes of men that stand above the common herd: the soldier, the sailor, and the shepherd not unfrequently; the artist rarely: rarelier still, the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilisation."—Robert Louis Stevenson



Such a physician was George H. Scanlon. He was dedicated to his patients and also to his profession. He spent many long hours above and beyond the call of duty working in organized medicine as well as on the Board of Blue Shield and the Board of Medical Examiners.

It is indeed fitting that the Iowa Medical Foundation has been renamed The Scanlon Medical Foundation/Iowa Medical Society. It is an appropriate tribute to a man who will long be remembered by his colleagues.

C. W. Leibert, M.D.

President



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Indication—Oral contraception.

Contraindications—Thrombophlebitis, thromboembolic disorders, cerebral apoplexy or a past history of these conditions, markedly impaired liver function, known or suspected carcinoma of the breast, known or suspected estrogen-dependent neoplasia, undiagnosed abnormal genital bleeding.

Warnings—Watch for the earliest manifestations of thrombotic disorders (thrombophlebitis, cerebrovascular disorders, pulmonary embolism, retinal thrombosis); if present or suspected discontinue the drug immediately.

British studies reported in April 1968[1,2] estimate there is a seven- to tenfold increase in mortality and morbidity due to thromboembolic diseases in women taking oral contraceptives. In these controlled retrospective studies, involving 36 reported deaths and 58 hospitalizations due to "idiopathic" thromboembolism, statistical evaluation indicated that the differences observed between users and non-users were highly significant. The conclusions reached in the studies are summarized in the table below:

Comparison of Mortality and Hospitalization Rates Due to Thromboembolic Disease in Users and Non-Users of Oral Contraceptives in Britain.

Category	Mortality Rates		Hospitalization Rates (Morbidity)
	Age 20-34	Age 35-44	Age 20-44
Users of Oral Contraceptives	1.5/100,000	3.9/100,000	47/100,000
Non-Users	0.2/100,000	0.5/100,000	5/100,000

No comparable studies are yet available in the United States. The British data, especially as they indicate the magnitude of the increased risk to the individual patient, cannot be applied directly to women in other countries in which the incidences of spontaneously occurring thromboembolic disease may differ.

Discontinue medication pending examination if there is sudden partial or complete loss of vision, or sudden onset of proptosis, diplopia or migraine. Withdraw medication if papilledema or retinal vascular lesions are found.

Since the safety of Ovulen in pregnancy has not been demonstrated, it is recommended that pregnancy be ruled out for any patient who has missed two consecutive periods before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule the possibility of pregnancy should be considered at the first missed period.

A small fraction of the hormone agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. The long-range effect to the nursing infant cannot be determined at this time.

Precautions—Pretreatment physical examination should include special reference to the breasts and pelvic organs, and a Papanicolaou smear.

Endocrine and possibly liver function tests may be affected by Ovulen. Therefore, it is recommended that such tests if abnormal be repeated after the drug has been withdrawn for two months.

Pre-existing uterine fibromyomas may increase in size under the influence of progestogen-estrogen preparations.

Because these agents may cause some degree of fluid retention, conditions which might be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation.

In breakthrough bleeding, and all irregular vaginal bleeding, consider nonfunctional causes. Adequate diagnostic measures are indicated in undiagnosed vaginal bleeding.

Carefully observe patients with a history of psychic depression and discontinue the drug if severe depression recurs.

Any possible influence of prolonged Ovulen therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study.

A decrease in glucose tolerance has occurred in a significant percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be observed carefully while receiving Ovulen.

Because of the effects of estrogens on epiphyseal closure Ovulen should be used judiciously in young patients in whom bone growth is not complete.

The age of the patient constitutes no absolute limiting factor, although Ovulen therapy may mask the onset of the climacteric.

The pathologist should be informed of Ovulen therapy when relevant specimens are submitted.

Adverse Reactions—A statistically significant association has been shown between use of oral contraceptives and the following serious adverse reactions: thrombophlebitis, pulmonary embolism.

Although available evidence is suggestive of an association, such a relationship has been neither confirmed nor refuted for the following serious adverse reactions: cerebrovascular accidents, neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis.

The following adverse reactions are known to occur in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea during and after treatment, edema, chloasma or melasma, breast changes (tenderness, enlargement, secretion), change in weight, changes in cervical erosion and cervical secretions, suppression of lactation when given immediately post partum, cholestatic jaundice, migraine, allergic rash, rise in blood pressure in susceptible individuals, mental depression.

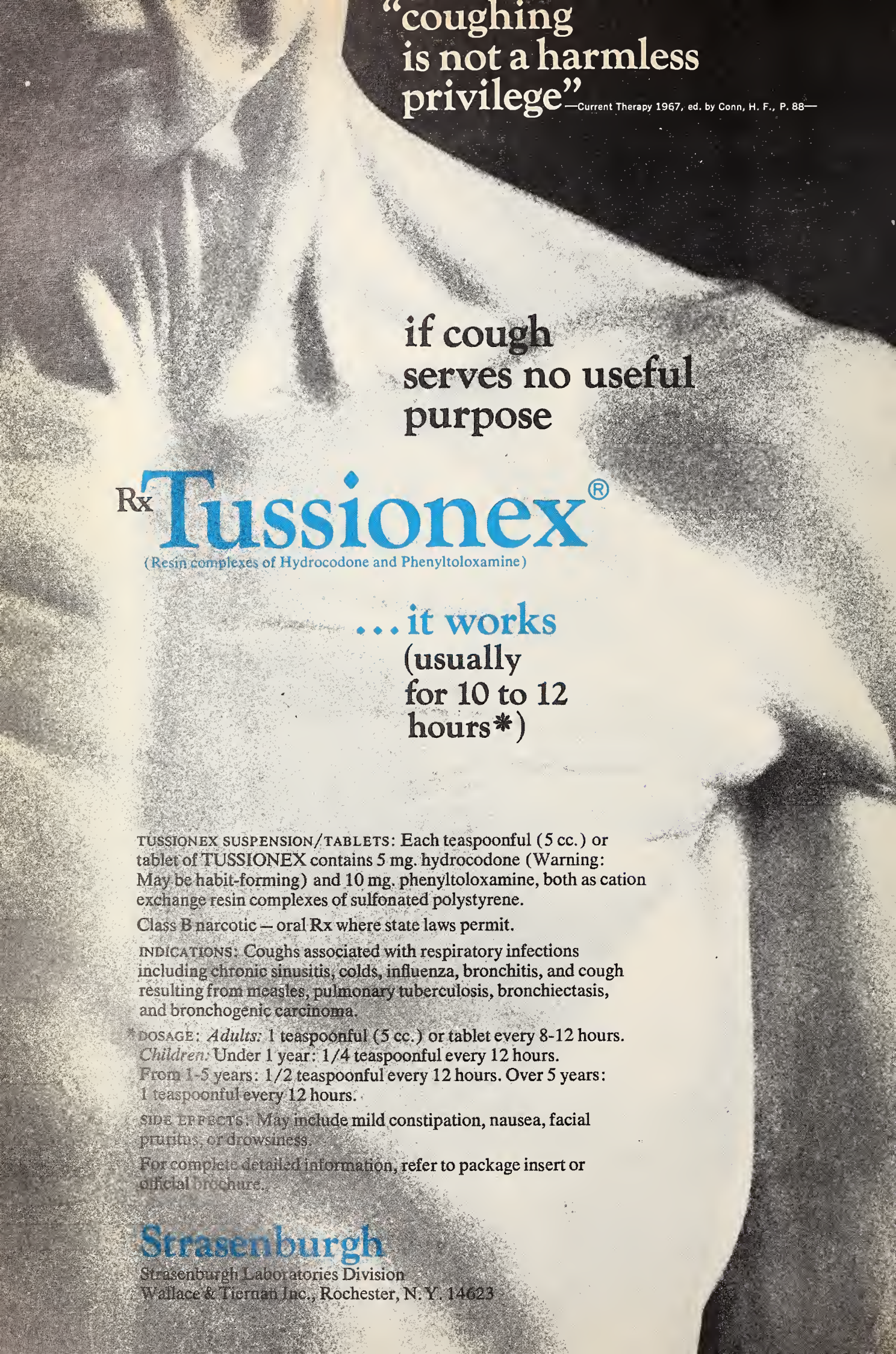
Although the following adverse reactions have been reported in users of oral contraceptives, an association has been neither confirmed nor refuted: anovulation post treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme and nodosum, hemorrhagic eruption, itching.

The following laboratory results may be altered by oral contraceptives: hepatic function: increased sulfobromophthalein and other tests; coagulation tests: increase in prothrombin, Factors VII, VIII, IX and X; thyroid function: increase in PBI and butanol extractable protein bound iodine, and decrease in T^3 uptake values; metyrapone test; pregnanediol determination.

References: 1. Inman, W. H. W., and Vessey, M. P.: Brit. Med. J. 2:193-199 (April 27) 1968. 2. Vessey, M. P., and Doll, R.: Brit. Med. J. 2:199-205 (April 27) 1968.

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STATE DEPARTMENT OF HEALTH



JAMES F. SPEERS, M.D., M.P.H., COMMISSIONER

Problems of Out-of-Wedlock Birth

MADELENE M. DONNELLY, M.D., M.P.H.
Chief, General Health Service

There has been much discussion about recent increases in the number of children born out-of-wedlock, and yet we really have no figures on which solid rates can be calculated. The figures available are obtained from birth certificates as filed in the Department of Vital Statistics. A notation will be made on the charts to designate whether rates are based on residents of state only, or on total deliveries done in the state.

Interest is centered on determining the factors in illegitimate pregnancies that contribute to the risk to the mother and infant. Many sociological and psychological influences which contribute to risk cannot be determined from examining birth certificates. However, it can be shown that the perinatal death rate for unmarried mothers (33.4 per 1,000 born) is definitely higher than the total rate for the perinatal group—26.6 per 1,000. The out-of-wedlock rate of premature births of 108.2 per 1,000 born is definitely higher than the rate of 68 per 1,000 for total births. These last two figures are for 1967 and are based on total occurrence.

If a true rate of illegitimacy is to be found, not only must the number of females in a specific age group be known, but also how many of that age group are actually living in wedlock at the time of their infants' birth. For example, in 1947 there were 36 infants born to mothers under 15 years of age. Fourteen of those mothers were unmarried. However, it is not known how many of the other 22 mothers were pregnant before marriage, or how many married girls under 15 years of age there were who did not become pregnant.

This leaves only one method for developing statistics on the number of illegitimacies, and that is to compare the number of illegitimate births with the total number of births, and thus arriving at a ratio of illegitimacy. Table 1 gives an over-all ratio of illegitimate births in each of the seven age groups for each of five years in a 20-year period.

It appears that the total ratios of illegitimate births have increased markedly during this 20-year period. The greatest increase in ratio occurred in girls 14 years of age or less. Again this figure is colored by the fact that very few girls in that age group had babies. Table 2 gives the number of illegitimate births occurring in the 12-13 and 14-year-old girls. It is apparent that in the 12-13 year old mothers, there is just an occasional out-of-wedlock pregnancy, although in the 14-year-olds there has been a definite increase.

TABLE 1
RATIO OF BIRTHS OUT OF WEDLOCK (Iowa Resident) BY AGE GROUP
(Number Per 1,000 Live Births)

	Age Group					
Year	14 Yrs. & Less*	15-19	20-24	25-29	30+	Total
1947	388.8	69.8	20.0	11.1	9.2	18.1
1952	459.5	64.6	15.3	8.2	6.3	15.7
1957	529.4	73.8	16.6	8.2	8.9	18.6
1962	697.0	85.8	25.9	11.8	13.4	26.8
1967	800.0	179.7	47.6	20.8	19.0	53.6

* The figures here are distorted by the fact that in any one of those years there were no more than 31 Iowa residents under 14 who delivered. Thus these figures—numbers per thousand (hypothetical) live births—don't mean much.

Another way to look at the distribution of illegitimate births is to consider the distribution of mothers by age group. In Table 3 the births have been distributed by the age of the mother. There it appears that the percentage of younger mothers has increased somewhat in the 15-19 year old group, but has decreased among those 25 and over. The latter phenomenon could be attributed to the availability of contraceptive methods. On the other hand, we must always remember the great disparity between the total number of births

TABLE 2
NUMBER OF BIRTHS OUT OF WEDLOCK
(Iowa Resident)

	Age		
Year	12 Years	13 Years	14 Years
1947	1	4	9
1952	2	2	13
1957	0	6	12
1962	0	4	19
1967	1	7	23

TABLE 3

DISTRIBUTION OF ILLEGITIMATE BIRTHS BY AGE OF MOTHER
(Per 1,000 Live Births)

Year	Age Group 14 Yrs. & Less	15-19	20-24	25-29	30+	Total
1947	12.8	426.3	340.3	134.5	86.0	1,000.0
1952	16.9	391.3	330.6	147.0	114.2	1,000.1
1957	15.2	428.1	302.1	121.0	133.6	1,000.2
1962	14.1	392.2	353.7	114.8	125.2	1,000.0
1967	12.6	467.4	344.3	99.5	76.2	1,000.0

in the younger age group and the total number of births to the older mothers.

In 1967, 308 of every 1,000 mothers giving birth to babies were having their first babies. In the unmarried groups, 678 of every 1,000 gave birth to their first child.

Only 404 of every 1,000 unmarried mothers saw a doctor in the first trimester of pregnancy, as compared to 761 of 1,000 total mothers. An estimate of adequacy of prenatal care cannot be made from these figures, but they certainly show that the unmarried girls do not seek early medical supervision. This may also be a clue to social factors or to economic deprivation.

Again it must be emphasized that socioeconomic status cannot be determined from birth certificates, but it is generally accepted that many of the non-white mothers come from lower economic strata. It is usually considered that one per cent, or 10 out of every 1,000 of the total population, in Iowa, are non-white.

The total rate per 1,000 of non-white women who are having babies delivered is somewhat higher than the 10 per thousand as seen in Table 4. Because there are so few non-white births, the data are fairly hard to interpret. In 1967, with a total of 46,925 births among the white population, there were 50.3 out-of-wedlock births for every 1,000 legitimate births. Of the 922 non-white births almost one-fourth, or 282 out of every 1,000, were born out of wedlock.

TABLE 4

NUMBER OF NON-WHITE BIRTHS
(Per 1,000 Total Births)

Year	
1958	14.7
1959	14.8
1960	15.8
1961	17.4
1962	18.4
1963	17.9
1964	17.4
1965	18.4
1966	18.6
1967	19.2

Table 5 gives figures on the total births for 1967, and distributes the births per 1,000 by white and non-white, and by the birth order of the child. This chart shows that the non-white mother having children out of wedlock is much more likely to be having her second or third child than is the white mother.

TABLE 5

DISTRIBUTION OF BIRTHS PER 1,000 BIRTHS BY COLOR AND PARITY OF MOTHER

Birth Order	Total Births	Illegit. Births	White Illegit.	Non-White Illegit.
1st child	308.3	678.1	694.4	530.8
2nd child	231.8	139.0	132.7	196.2
3rd child	162.5	59.9	57.7	80.7
4th or more	295.5	122.9	115.2	192.3
N.S.	1.8	0	0	0
Total	1,000.0	1,000.0	1,000.0	1,000.0

The purpose of this dissertation is to point out a few of the things that are evident about births out of wedlock, namely, that the perinatal death rate is high, that the incidence of prematurity is higher, and that prenatal care is sought later in the pregnancy.

Every hospital in the state cares for unmarried mothers at some time. Many of the deliveries are drop-ins, with no prenatal care and with no arrangements made for the mothers' lying-in or for the disposition of the child. Facilities for the care of these mothers are really not available in the ordinary hospital. There is no social worker to work with the mother and to help the mother make her plans. There is no one there during her lying-in period to teach her how to care for herself and her baby, and there is no way of reaching out to give assistance to her family. Most of these drop-ins must necessarily be cared for as "free" cases imposing financial hardships on the hospital and the doctor.

These problems can be overcome only by improving definitive services to girls who are pregnant out of wedlock. Too often the one to whom the girl first turns for help fails her because he or she is not knowledgeable about where care is available and/or about what type of care the girl needs. Too often the salient point, from the girl's point of view, is keeping her family from learning about her condition. This means that her family does not have a chance to participate in her care, nor does she have adequate medical consultation. Frequently, when her family does know about her condition, the family stands in the way of her getting good service because of its desire to cloak the matter in secrecy.

If good help is to be given to these girls, the medical profession must assume stronger leadership in seeing that they actually do have adequate prenatal care and that they are referred to agencies which will give them the sociological and psychological consultation they so badly need, and which will see to it that they are placed in a situation where they can continue their education when they have been forced to leave school. The care of a girl out of wedlock is certainly not a task that can be undertaken by any one person. It requires a team working together, if the goal is to be complete habilitation.

Director of Planning

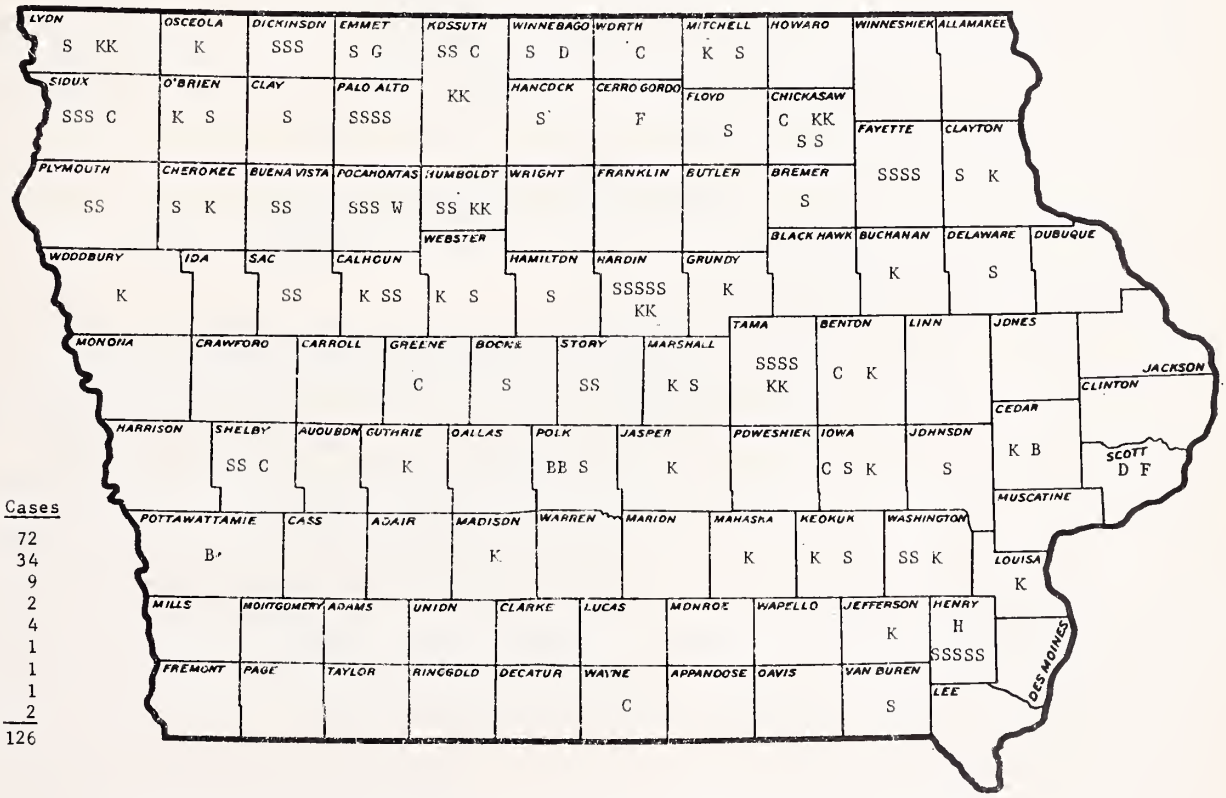
Ben K. Yarrington has been appointed director of the Office for Comprehensive Health Planning. His office is in the Iowa State Department of Health, Robert Lucas Building, Des Moines.

Mr. Yarrington has served as executive director for the United Cerebral Palsy Association of Iowa since 1966, and is well-versed in health-related needs and planning.

A native of Michigan, Mr. Yarrington holds a B.S. degree in social work from Michigan State University and has done graduate work on mental retardation at the University of Wisconsin.

RABIES IN ANIMALS IN IOWA IN 1968

County Distribution by Species of Reported Cases*



Legend	Cases
S-Skunk	72
K-Cattle	34
C-Cat	9
D-Dog	2
B-Bat	4
H-Horse	1
W-Swine	1
C-Badger	1
F-Fox	2
Total	126

* Reported by State Hygienic Laboratory, Iowa City, and Veterinary Diagnostic Laboratory, Ames.

Rabies in Animals in Iowa in 1968—Annual Summary

In 1958 a total of 126 cases of rabies in animals were reported from 58 Iowa counties. The incidence was below the 136 cases reported in 1967, and well below the 463 cases in 1964.

Since only laboratory-confirmed cases are included, these figures represent but a fraction of the actual incidence of the disease in animals in each instance, and the geographic distribution indicates there is a widespread reservoir of the disease in Iowa. Cases occurred in each month of the year, and ranged from 17 in May to four in October. The disease was reported among nine different species of animals, the greatest number being in skunks.

It is notable that only two cases were reported in dogs, a species for which reporting is relatively complete. In 1967 only one rabid dog was reported. All three of these 1967 and 1968 cases were in young, unvaccinated dogs. This is the lowest reported incidence of dog rabies in Iowa in more than 50 years. It is believed that the state antirabies dog vaccination law which went into effect in 1966 is a major factor in the low incidence of dog rabies. The decline in dog rabies is of con-

siderable public-health significance, since most animal bites are inflicted by dogs.

Although vaccination of other pet animals is not required, anti-rabies vaccination of other pets, especially cats, is recommended.

The most recent human rabies case in Iowa occurred in 1951. That year 404 animal cases were reported, of which 165 were in dogs.

Cerebral Dysfunctions

The second annual seminar sponsored by the Cedar Rapids Child Evaluation Clinic will be held on March 30, 1969, at the Roosevelt Hotel there. The topic: Cerebral Dysfunctions.

The faculty will consist of Dr. Arthur Benton, professor of psychology and neurology, University of Iowa, who will speak on the behavioral aspects of cerebral dysfunctions; Jean McRae McCarthy, Ph.D., director, Learning Disabilities Program, University of Illinois, who will speak on "The Ten Commandments of Learning Disabilities"; Dr. Richmond Paine, professor of child neurology, George Washington University Children's Hospital, Washington, D. C., who will speak about the neurologic-diagnostic aspects of cerebral dysfunctions; Dr. Gerald Solomons, associate professor of pediatrics and director of the Child Development Clinic, University of Iowa, who will speak on the drug treatment of cerebral dysfunctions; and Dr. Walter Block, medical director of the Cedar Rapids Child Evaluation Clinic, who will present a brief overview entitled "Cerebral Dysfunctions: What Are We Talking About?"

The seminar is sponsored by the Linn County Medical Society, by the Iowa Chapter of the American Academy of General Practice (which will grant postgraduate credit for it to those of its members who attend), and by the Council for Exceptional Children. Pre-registration until March 10 is $5; registration on the day of the seminar will be $6. Students, student nurses and interns will be admitted free. The last portion of the seminar will be a roundtable discussion to answer questions from the audience. All of the speakers will participate in it.

In the realization that there is a great need for better liaison between the medical and the teaching professions, this seminar will be open to members of both. For further information, address Dr. Block at 643 Tenth Street Southeast, Cedar Rapids 52403.

Help your central office to maintain an accurate mailing list. Send your change of address promptly to the JOURNAL, 1001 Grand Avenue, West Des Moines, Iowa 50265.

Monthly Report for Month of January, 1969

Diseases	Jan. 1969	Dec. 1968	Jan. 1968	Most Cases Reported From These Counties
Aseptic meningitis	0	2	0	
Brucellosis	0	1	1	
Chickenpox	787	681	792	Dubuque, Polk, Story
Encephalitis	1	4	0	Scott
Food poisoning	0	0	0	
German measles	183	140	77	Black Hawk, Humboldt, Kossuth
Gonorrhea	288	372	271	Urban counties
Histoplasmosis	2	3	4	Polk
Impetigo	31	61	30	Black Hawk, Polk, Wapello
Infectious hepatitis	53	37	33	Des Moines, Story, Woodbury
Infectious mononucleosis	54	36	52	Cedar, Johnson
Influenza (confirmed*)	815 (*92)	141	5,412	Calhoun, Marion, Polk
Malaria, P. vivax, imported	3	0	0	Hardin, Pottawattamie, Story
Measles	22	57	23	Dallas, Des Moines, Harrison, Pottawattamie
Meningitis, H. influenzal	2	1	1	Black Hawk, Delaware
Meningitis, meningococcal	3	3	1	Dubuque, Polk, Story
Meningitis, type unspec.	0	3	5	
Mumps	806	728	1,827	Clay, Johnson, Scott
Pneumonia	35	66	42	Cherokee, Pottawattamie
Rabies in animals	7	7	16	Butler, Clinton, Des Moines, Franklin, Mitchell, Winnebago
Rheumatic fever	5	1	2	Sporadic
Salmonellosis	16	15	4	Johnson, Wapello, Woodbury
Streptococcal infections	530	508	536	Jefferson, Johnson
Shigellosis	2	5	8	Johnson, Wapello
Syphilis	55	60	49	Urban counties
Tuberculosis	15	10	10	Polk, Scott

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An antitussive and expectorant for control of coughs due to colds or of allergic origin, BENYLIN EXPECTORANT is the leading cough preparation of its kind. BENYLIN EXPECTORANT tends to inhibit cough reflex... soothes irritated throat membranes. And its not-too-sweet, pleasant raspberry flavor makes BENYLIN EXPECTORANT easy to take.

PRECAUTIONS: Persons who have become drowsy on this or other antihistamine-containing drugs, or whose tolerance is not known, should not drive vehicles or engage in other activities requiring keen response while using this preparation. Hypnotics, sedatives, or tranquilizers if used with BENYLIN EXPECTORANT should be prescribed with caution because of possible additive effect. Diphenhydramine has an atropine-like action which should be considered when prescribing BENYLIN EXPECTORANT.

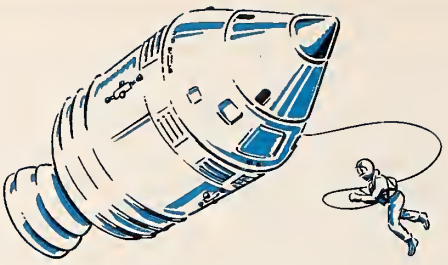
ADVERSE REACTIONS: Side reactions may affect the nervous, gastrointestinal, and cardiovascular systems. Drowsiness, dizziness, dryness of the mouth, nausea, nervousness, palpitation, and blurring of vision have been reported. Allergic reactions may occur.

PACKAGING: Bottles of 4 oz., 16 oz., and 1 gal.

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Man in space, now fait accompli, re-emphasizes the importance of Uro-Phosphate therapy. Research into the effect of space travel on the astronaut reveals that weightlessness causes loss of bone calcium. As the bones are required to bear less and less of the weight of the body they lose calcium, increasing the calcium content of the urine. When physical activity is reduced, the acidity of the urine should be adjusted to keep increased calcium in solution a prophylaxis to prevent kidney or bladder calculi.

Uro-Phosphate®

NOW A SUGAR-COATED TABLET

Each tablet contains: METHENAMINE, 300 mg.; SODIUM ACID PHOSPHATE, 500 mg.

Uro-Phosphate gives comfort and protection when inactivity causes discomfort in the urinary function. It keeps calcium in solution, preventing calculi; it maintains clear, acid, sterile urine; it encourages complete voiding and lessens frequency when residual urine is present.

Uro-Phosphate contains sodium acid phosphate, a natural urinary acidifier. This component is fortified with methenamine which is inert until it reaches the acid urinary bladder. In this environment it releases a mild antiseptic keeping the urine sterile.

Uro-Phosphate is safe for continuous use. There are no contra-indications other than acidosis. It can be given in sufficient amount to keep the urine clear, acid and sterile. A heavy sugar coating protects its potency.

Dosage:

For protection of the inactive patient 1 or 2 tablets every 4 to 6 hours is usually sufficient to keep the urine clear, acid and sterile.

2 tablets on retiring will keep residual urine acid and sterile, contributing to comfort and rest.

A clinical supply will be sent to physicians and hospitals on request.

WILLIAM P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA 23217

Manufacturers of Ethical Pharmaceuticals



"The inconvenience of a cold"

For a cold, NTz® Nasal Spray provides rapid relief of nasal symptoms. Relief starts with the first spray which opens the inferior part of the common meatus. A second spray, a few minutes later, will shrink the turbinates to help provide sinus drainage and ventilation. Dosage may be repeated every three or four hours as needed, for temporary relief of symptoms. NTz is well tolerated but overdosage should be avoided.

As a sinusitis deterrent, NTz Nasal Spray can be used to keep the nasal passages open during a cold to help prevent development of acute sinusitis—or to help prevent the acute condition from becoming chronic.

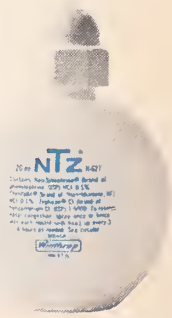
Supplied: NTz Nasal Spray, plastic squeeze bottles of 20 ml.; NTz Nasal Solution, bottles of 30 ml. (1 fl. oz.) with dropper.

NTz is more than a simple vasoconstrictor. It contains

Neo-Synephrine® (brand of phenylephrine) HCl 0.5 per cent, the major component, virtually synonymous with fast, efficient but gentle nasal vasoconstriction.

Thenfadil® (brand of thenyldiamine) HCl 0.1 per cent, topical antihistamine for reduction of rhinorrhea, sneezing or itching. It combats the allergic reactions that may occur in colds or sinusitis.

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THE BETTMAN ARCHIVE



Just one tablet at bedtime • Prevents painful night leg cramps • Permits restful sleep

How many of your patients stamp their feet at night and lose sleep because of painful leg cramps? Unless prompted, they usually fail to report this distressing condition and suffer needlessly.

One tablet of QUINAMM at bedtime usually controls distressing night cramps and permits restful sleep with the initial dose.

Prescribing information—Composition: Each white, beveled, compressed tablet contains: Quinine sulfate, 260 mg., Aminophylline, 195 mg. **Indications:** For the prevention and treatment of nocturnal and recumbency leg muscle cramps, including those associated with arthritis, diabetes, varicose veins, thrombophlebitis, arteriosclerosis and static foot deformities. **Contraindications:** QUINAMM is contraindicated in pregnancy because of its quinine content. **Side Effects/Precautions:** Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. Discontinue use if ringing in the ears, deafness, skin rash, or visual disturbances occur. **Dosage:** One tablet upon retiring. Where necessary, dosage may be increased to one tablet following the evening meal and one tablet upon retiring. **Supplied:** Bottles of 100 and 500 tablets.



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Antrocol

Antrocol provides the prompt, predictable antisecretory action of the belladonna alkaloid, atropine, fortified with sedation and blended with Bensulfoid, contributing to slow, even absorption.

Each Antrocol tablet or capsule contains 0.324 mg. of atropine sulfate, which is twenty-four thousandths of a milligram more than the smallest effective dose specified in U.S.P., Vol. 17. This slight increase in the smallest effective dose of the antisecretory factor (atropine) is all the average patient can tolerate without discomfort.

One Antrocol tablet or capsule taken three times daily lessens emotional stress and maintains a gastric function that is not conducive to the development of peptic ulcer.

Antrocol is also useful in the treatment of peptic ulcer. Dosage up to 8 tablets or capsules per day to obtain the desired antisecretory titer. When ulcer has healed, one Antrocol tablet or capsule morning and evening gives protection against recurrence.

Each tablet or capsule contains:

Atropine Sulfate	0.324 mg.
Phenobarbital (may be habit forming)	16 mg.
Bensulfoid, see white section P.D.R.	65 mg.

Side-effects: Toxic levels of atropine may produce flushing, dry mouth, blurred vision, tachycardia, or urinary retention. Precautions: Do not use in glaucama. Use cautiously in prostatic hypertrophy.

Federal law prohibits dispensing without prescription.

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Manufacturers of ethical pharmaceuticals since 1856

Antrocol®

ANTISECRETORY SEDATIVE

INFORMATION FROM THE
IOWA HEART ASSOCIATION

Coronary Arteriography

HARVEY G. KEMP, M.D., and
RICHARD GORLIN, M.D.
Boston, Massachusetts

Opacification of the coronary vascular system by contrast material during cardiac catherterization has had an enormous impact on our knowledge of coronary heart disease. It has allowed us, with surprising safety, to define precisely the anatomic extent of coronary atherosclerosis in living man. Added impetus has been given to coronary arteriography by new directions in therapy. For example, evidence is accumulating that surgical revascularization of the myocardium is not only feasible but beneficial. The normal course of a recently developed diagnostic procedure, like a new drug, is to oscillate between crests of over-enthusiasm and nadirs of total rejection. Now, after some 10 years, it is useful to reassess the place of coronary arteriography in the diagnostic armamentarium.

Because this article is intended to give a general view of the field to the practicing internist, surgeon, and general practitioner, relatively little attention will be given to the technical details of obtaining high-quality coronary arteriography. It will be stressed repeatedly, however, that only high-quality studies provide the accurate information which justifies exposing the patient to the potential hazards of the procedure.

HISTORICAL ACCOUNT

The two methods which have received widest application are the retrograde approach from the right brachial artery and the percutaneous retrograde approach from the femoral artery using a pre-formed catheter. In experienced hands, either of these methods can yield excellent selective studies, at low risk to the patient.

SAFETY

The decision to perform coronary arteriography should be based upon the weighing of the benefits expected to accrue from the resulting information, as opposed to the potential hazards involved. The latter have recently been evaluated in a cooperative study of 16 laboratories. A total of 3,312 studies performed on 3,264 patients were included in the study group. Sixty-six complications occurred in 62 patients, for an overall complication rate of 1.9 per cent. Cardiac complications occurred in 10, myocardial infarction in 5, coronary insufficiency in 4, and dissection of a coronary arterial wall without myocardial infarction in 1. Death occurred in two of the five patients sustaining a myocardial infarction. One of these patients had an aortic valve replacement with a Starr-Edwards prosthesis, and the infarction was secdary to coronary embolism. An additional death occurred in a patient with combined coronary heart disease and aortic stenosis, yielding an overall mortality rate of less than 0.1 per cent. Ventricular fibrillation occurred in 27 patients: it was found to be a more frequent complication in women, and occurred oftener after injection of the right than of the left coronary artery. In each instance, the patient recovered without sequelae, indicating the relatively innocuous nature of this arrhythmia when well-trained personnel and adequate resuscitative equipment are available. Thrombosis of the brachial artery occurred in 10 patients, but in the present authors' experience, this figure probably suggests a too-infrequent incidence for this complication. Fortunately if the brachial artery remains patent above the antecubital space, symptoms are slight and transient, and surgical repair is not necessary. However, surgical intervention has been necessary in about 0.5 per cent (2 of over 400) patients in the authors' experience. In both instances, surgery restored the patency of the brachial artery.

From available data, it seems reasonable to conclude that the risk of death related to coronary arteriography is a consequence of the severity of the coronary heart disease, and that significant aortic stenosis or prosthetic replacement of the aortic valve add to that risk. On the other hand, the vast majority of patients who undergo this procedure have extensive coronary disease, and withstand the arteriographic study with no complication at all.

INDICATIONS

It is somewhat easier to quantify the potential hazards associated with coronary arteriography than to assess the potential benefit that the individual patient can obtain from the information yielded by the procedure.

It is safe to generalize that the physician is al-

Dr. Kemp is a junior associate in medicine at Peter Bent Brigham Hospital, and an instructor in medicine at Harvard Medical School. Dr. Gorlin is director of the Cardiovascular Unit and a physician at Peter Bent Brigham Hospital, an assistant professor of medicine at Harvard Medical School, and an investigator at the Howard Hughes Medical Institute.

ways better equipped to care for the patient when his knowledge of the patient's condition has been extended. This is particularly true of diseases in which there is a relatively poor correlation between symptoms, indirect measurements, and the extent of anatomic disease. In this regard, several specific observations about coronary heart disease have emphasized the usefulness of arteriography. In the past, studies based solely on autopsy material had shown an excellent correlation between a clinical history of angina pectoris and extensive coronary atherosclerosis. Since the advent of coronary arteriography, however, a group of patients has emerged with angina pectoris but with major coronary arteries free of intraluminal obstruction. This paradoxical syndrome has been consistently reported in about 10 per cent of subjects referred to centers performing coronary arteriography because of angina pectoris. The etiology of angina in this group remains obscure, but it would seem probable that the appropriate treatment and prognosis of this group will prove to be significantly different from those for patients with arteriographically demonstrable coronary atherosclerosis. At present, there are no methods other than arteriography to differentiate these two groups.

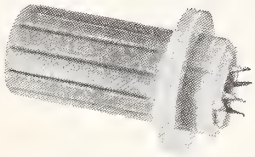
In addition to the unusual syndrome just described, there are many patients with less typical histories, with non-specific electrocardiographic abnormalities, and with unexplained congestive heart failure, arrhythmia or some combination of the above, in whom coronary heart disease is suspected but cannot be included or excluded on clinical grounds alone. An unknown, but certainly high, percentage of these patients will have normal coronary arteriograms, and in such cases treatment can be redirected either toward correction of whatever disease is found, or in the absence of demonstrable heart disease, toward psychologic rehabilitation. The amount of psychologic damage done to patients by well-intentioned physicians who have erroneously attached the label of coronary heart disease to some masquerading symptom complex, can neither be over-estimated nor readily undone.

Perhaps the largest group of patients who merit coronary arteriographic studies includes those who have clearly established coronary heart disease associated with chest pain syndromes not easily susceptible to medical management. It is obvious that several value judgments are called for and that probably no two observers would evaluate the same patient in exactly the same fashion. Also, it is clear that while the results of myocardial revascularization are being more precisely defined in terms of pain relief, objective signs of increased myocardial perfusion, and longevity, our criteria for study will continue to change. Although it is not within the scope of this report to offer a critical evaluation of myocardial revascularization, the decision to obtain arteriographic studies is inextricably related to one's evaluation of the potential benefits of surgical intervention. Addressing ourselves to this specific point, we believe present data strongly indicate not only that pain syndromes can be substantially relieved by internal mammary artery implantation, but that there is objective evidence of improved myocardial perfusion. Further, there is reason for optimism concerning increased longevity, particularly in patients surviving 18 months after the procedure. In addition, new revascularization procedures, particularly the direct replacement of segments of the right coronary artery with venous grafts, currently show promise. As surgical procedures have continued to evolve, young patients with myocardial infarction without pain or congestive heart failure have become legitimate subjects for arteriography, at least in centers where data concerning the effect of revascularization on longevity are being actively compiled and evaluated. For the present, it seems unwise and overly conservative to allow patients to restrict their lives severely because of coronary heart disease, and this is particularly true of the young patient.

There are a number of miscellaneous indications for coronary arteriography. Patients with angina and aortic-valve disease who are being considered for valvular replacement should certainly be studied, and probably patients with mitral valve disease, as well. The cardiologist is thus helped to

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understand total myocardial function and to make a more objective estimate of the surgical risk and ultimate prognosis. It provides very helpful information for the surgeons who will be perfusing the coronaries at the time of surgery. Uncommon specific indications for coronary arteriography include suspected congenital malformations, luetic involvement of the coronary ostia, and coronary-artery embolism.

To some degree, the indication for adding selective coronary arteriography to any retrograde left-heart catheterization procedure performed on a patient in the coronary age group depends upon the ease with which the particular laboratory can perform coronary arteriography. If experienced personnel are available, arteriography can add very helpful information at a negligible additional risk to the patient. Left-heart catheterization of a patient with suspected cardiomyopathy is an excellent case in point.

ACCURACY OF CORONARY ARTERIOGRAPHY

Every diagnostic procedure must be evaluated in the light of the accuracy of the information it yields. When one views coronary arteriography of excellent radiographic quality, a highly accurate picture of the major coronary vessels and their branches can be obtained. A study done on 29 subjects comparing the interpretation of coronary arteriography with the actual amount of disease found at necropsy at the Peter Bent Brigham Hospital confirmed this impression. Of the many opportunities for error in interpreting 145 coronary arteries individually, only three errors of functional significance were made. There was a direct relationship between the accuracy of interpretation and the radiographic quality of the arteriography, significant errors being made only in films of borderline quality.

A number of factors contribute to radiographic quality, most of them being of a technical nature and not germane to the present discussion. It is sufficient to remember that appropriate magnification, contrast, focus, and day-to-day consistency are essential, and are most often found in a laboratory where there is an almost daily use of coronary arteriography.

University Hospitals Drug Letter

(Continued from page 225)

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6. Gomez, M. R., *et al.*: Human case of skunk rabies. JAMA, **194**:333-335, (Oct. 25) 1965.
7. Anderson, J. A., *et al.*: Human rabies after antiserum and vaccine postexposure treatment; case report and review. Ann. Int. Med., **64**:1297-1302, (June) 1966.
8. Zoonoses Surveillance—Annual Rabies Summary 1966. Atlanta, USPHS National Communicable Disease Center, 1967.
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Prescribed for you—

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Annual Meeting

April 27-30

Meeting of the
IMS NOMINATING COMMITTEE

1:30 p.m., Sunday, March 30
IMS Headquarters Building
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So he'll breathe easier:

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Relief of pain is usually a major goal in traumatic conditions. But often of importance, too, is alleviation of anxiety and tension that may heighten patient discomfort.

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IN BRIEF.

Contraindications: History of sensitivity or severe intolerance to aspirin, meprobamate or ethoheptazine citrate.

Warnings: USE IN PREGNANCY: Safety for use during pregnancy or lactation has not been established; therefore, it should be used in pregnant patients or women of child-bearing age only when the physician judges its use essential to the patient's welfare.

Precautions: Keep out of reach of children. Not recommended for patients 12 years old or less. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use of meprobamate in susceptible persons—as alcoholics, ex-addicts, severe psychoneurotics—has resulted in dependence or habituation. Withdraw gradually after prolonged excessive dosage to avoid possibly severe withdrawal reactions including epileptiform seizures. Warn patients of possible reduced alcohol tolerance, with resultant slowed reactions and impaired judgment and coordination. If drowsiness, ataxia or visual disturbances (impairment of accommodation and visual acuity) occur, reduce dose. If symptoms persist, patients should not operate machinery or drive. After meprobamate overdose, prompt sleep, reduction of blood pressure, pulse and respiratory rates to basal levels, and hyperventilation are reported. Give cautiously and in small amounts to patients with suicidal tendencies. Treat attempted suicide (has resulted in coma, shock, vasomotor and respiratory collapse and anuria) with gastric lavage and appropriate symptomatic therapy (CNS stimulants and pressor amines as indicated). Two instances of accidental or intentional significant overdosage with ethoheptazine and aspirin have been reported. These were accompanied by CNS depression (drowsiness and lightheadedness) but resulted in uneventful recovery. On basis of pharmacologic data, CNS stimulation could be anticipated, with nausea, vomiting and salicylate intoxication (requires induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, and observation for hypoprothrombinemic hemorrhage [usually requires whole blood transfusions]).

Adverse Reactions: Ethoheptazine and aspirin may cause nausea with or without vomiting and epigastric distress, in a small percentage of patients. Dizziness is rare at recommended dosage. Meprobamate may cause drowsiness, ataxia and rarely allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses. Such patients may have had no previous contact with meprobamate and may or may not have an allergic history. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have been reported. If allergic reaction occurs, discontinue meprobamate; do not reinstitute. Severe reactions, observed very rarely, include fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. These cases should be treated symptomatically including, when indicated, such medication as epinephrine, antihistamine and possibly hydrocortisone. A few cases of leukopenia, usually transient, have been reported on continuous use. Rarely, aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia have been reported, almost always in presence of known toxic agents.

Overdosage: See precautions section for management of overdosage.

Composition: 150 mg. meprobamate, 75 mg. ethoheptazine citrate and 250 mg. aspirin per tablet.

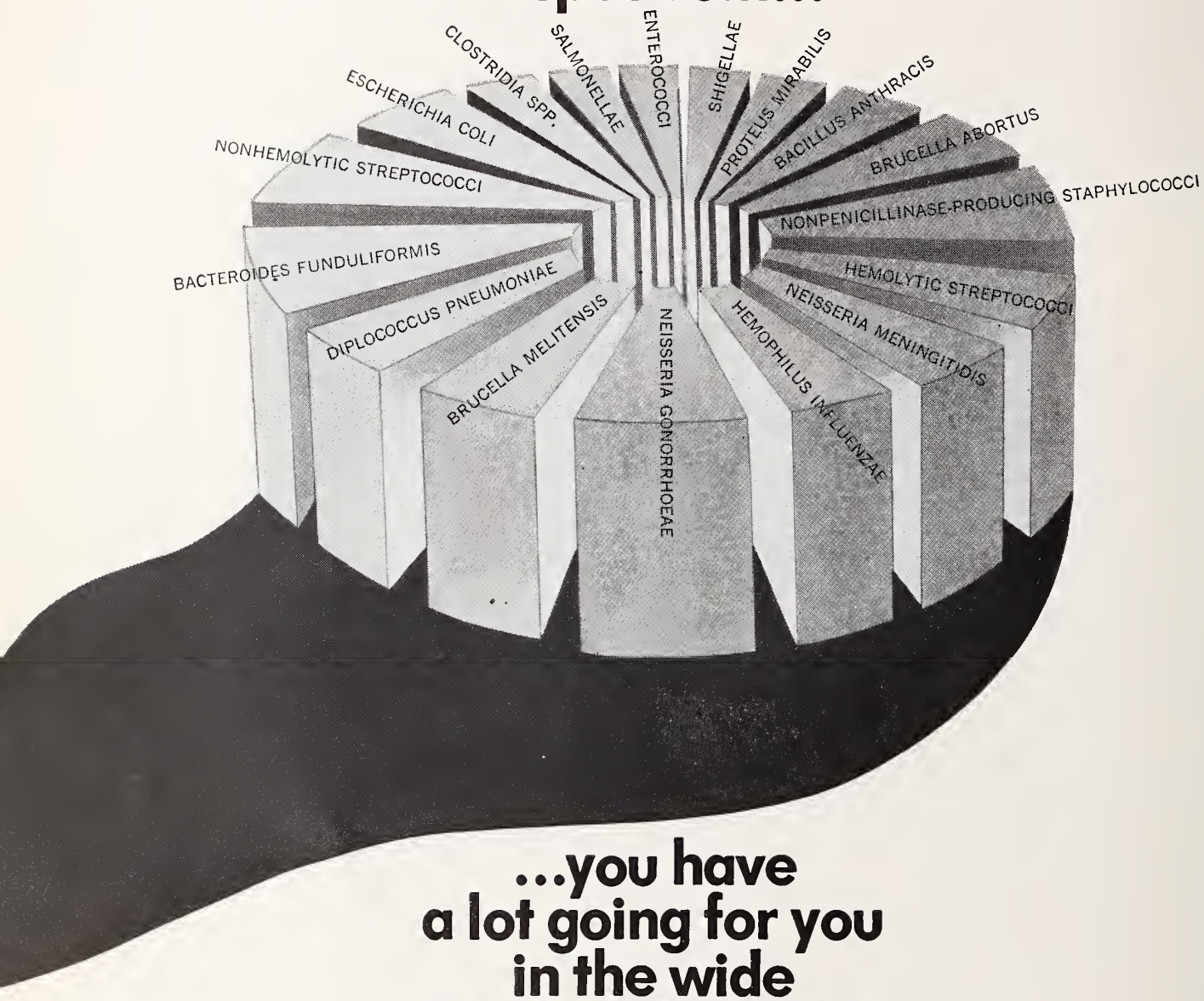
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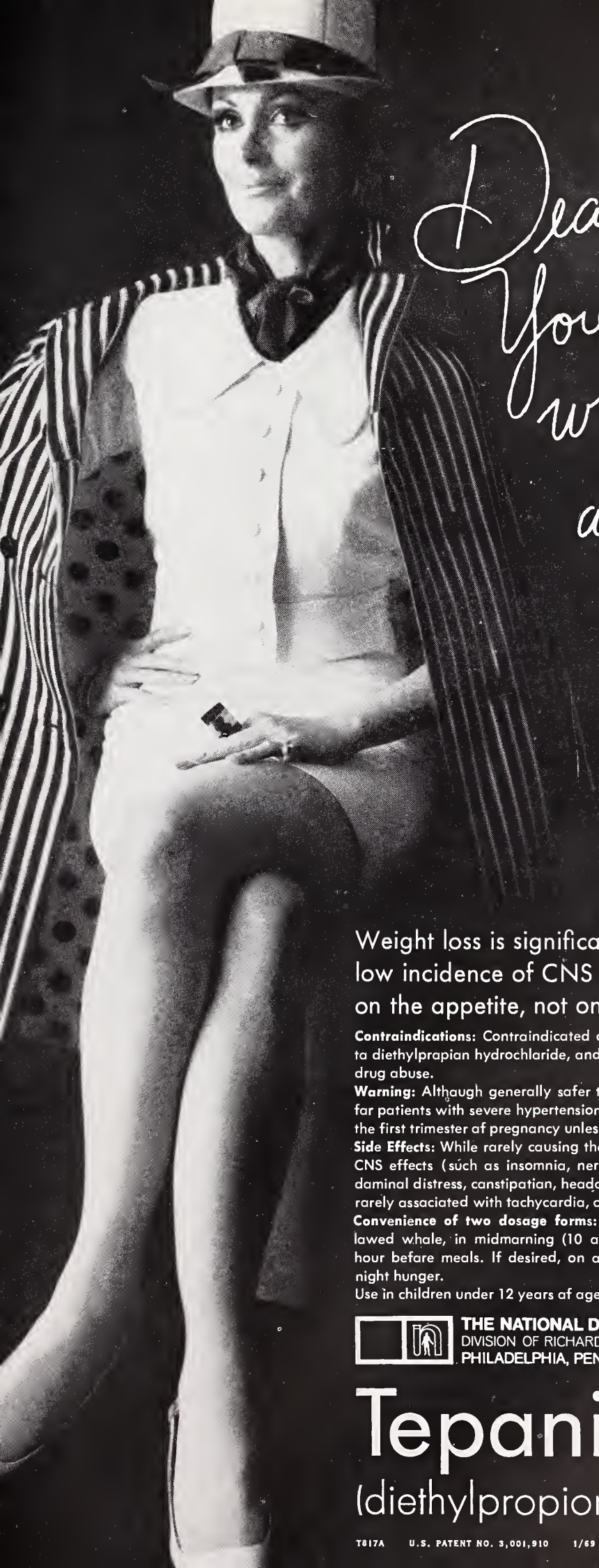
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Indications: Infections due to susceptible strains of Gram-negative bacteria (including Shigellae, *S. typhosa* and other Salmonellae, *E. coli*, *H. influenzae*, *P. mirabilis*, *N. gonorrhoeae* and *N. meningitidis*) and Gram-positive bacteria (including streptococci, pneumococci and nonpenicillinase-producing staphylococci).
Contraindications: A history of allergic reactions to penicillins or cephalosporins and infections due to penicillinase-producing organisms.
Precautions. Typical penicillin-allergic reactions may occur, especially in hypersensitive patients. Mycotic or bacterial superinfections may occur. Experience in newborn and premature infants is limited and caution should be used in treatment, with frequent organ function evaluations. Safety for use in pregnancy is not established. In gonorrheal therapy, serologic tests for syphilis should be performed initially and monthly for 4 months. Assess renal, hepatic and hematopoietic function intermittently during long-term therapy.
Adverse Reactions: Skin rash, pruritus, urticaria, nausea, vomiting, diarrhea and anaphylactic reactions. Mild transient elevations of SGOT or SGPT have been noted. Black tongue has been noted in some patients receiving the Chewable Tablets.
Usual Dosage: Adults—250 or 500 mg. q. 6 h. (according to infection site and offending organisms). Children—50-100 mg./Kg./day in 3 to 4 divided doses (depending on infection site and offending organisms). Bacterial meningitis —150-200 mg./Kg./day in 6 to 8 divided doses. Children weighing more than 20 Kg. should be given an adult dose when prescribing orally. In parenteral administration, children weighing more than 40 Kg. should be given an adult dose. Beta-hemolytic streptococcal infections should be treated for at least 10 days.
Supplied: Capsules—250 mg. in bottles of 24 and 100. 500 mg. in bottles of 16 and 100. For Oral Suspension—125 mg./5 ml. in 60, 80 and 150 ml. bottles. 250 mg./5 ml. in 80 and 150 ml. bottles. Chewable Tablets—125 mg. in bottles of 40. Injectable—for I.M./I.V. use—vials of 125 mg., 250 mg., 500 mg., and 1 Gm. Pediatric Drops—100 mg./ml. in 20 ml. bottles.
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Warning: Althaugh generally safer than the amphetamines, use great cautian when prescribing far patients with severe hypertension ar severe cardiovascular disease. Should not be used during the first trimester af pregnancy unless potential benefits autweigh potential risks.

Side Effects: While rarely causing therapy to be withdrawn, side effects may accur accasionally; CNS effects (such as insomnia, nervousness, jitteriness), dryness af mauth, thirst, nausea, abdaminal distress, canstipatian, headache, allergic respanse including urticaria or other dermatitis; rarely assaciated with tachycardia, cardiac arrhythmia ar ECG changes.

Convenience of two dosage forms: TEPANIL Ten-tab toblets: One 75 mg. tablet daily, swallawed whale, in midmarning (10 a.m.); TEPANIL: One 25 mg. toblet three times daily, one hour befare meals. If desired, on additianal tablet may be given in midevening to overcome night hunger.

Use in children under 12 years af age is nat recammended.

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T817A U.S. PATENT NO. 3,001,910 1/69





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he forgets he has hypertension, gets hot under the collar. . . high under the cuff.

For such patients, consider **Regroton®**

chlorthalidone	50 mg.
reserpine U.S.P.	0.25 mg.

To lower blood pressure
and allay anxiety in hypertension.

For brief summary of prescribing information, see next page.

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chlorthalidone 50 mg.
reserpine U.S.P. 0.25 mg.

the once-a-day tablet for anxious hypertensives

Regroton is a combination of two basic antihypertensives designed to lower blood pressure and allay anxiety in hypertension. With Regroton he can keep his shirt on and you can keep his blood pressure down.

Before prescribing, please review carefully the indications, contraindications, warning, precautions, adverse reactions and dosage information below.

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chlorthalidone 50 mg.
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Indications: Hypertension.
Contraindications: History of mental depression, hypersensitivity, and most cases of severe renal or hepatic diseases.
Warning: With the administration of enteric-coated potassium supplements, which should be used only when adequate dietary supplementation is not practical, the possibility of small-bowel lesions (obstruction, hemorrhage, and perforation) should be kept in mind. Surgery for these lesions has frequently been required and deaths have occurred. Discontinue coated potassium-containing formulations immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Discontinue one week before electroshock therapy, and if depression or peptic ulcer occurs.
Use in pregnancy: Because chlorthalidone may cross the placental barrier and appear in cord blood and thiazides may appear in breast milk, this drug should be used with care in pregnant patients and nursing mothers. When used in women of childbearing age, the potential benefits of the drug should be weighed against the possible hazards to the fetus. Use of chlorthalidone may result in fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult. Increased respiratory secretions, nasal congestion, cyanosis and anorexia may occur in infants born to reserpine-treated mothers.
Precautions: Antihypertensive therapy with this drug should always be initiated cautiously in postsympathectomy patients and in patients receiving ganglionic blocking agents, other potent antihypertensive drugs, or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. To avoid hypotension during surgery, discontinue therapy with this agent two weeks prior to elective surgical procedures. In emergency surgery, use, if needed, anticholinergic or adrenergic drugs or other supportive measures as indicated. Because of the possibility of progression of renal damage, periodic kidney function tests are indicated. Discontinue if the BUN rises or liver dysfunction is aggravated. Hepatic coma may be precipitated. Electrolyte imbalance, sodium and/or potassium depletion may occur. If potassium depletion should occur during therapy, the drug should be discontinued and potassium supplements given, provided the patient does not have marked oliguria.
Take particular care in cirrhosis or severe ischemic heart disease and in patients receiving corticosteroids, ACTH, or digitalis. Severe salt restriction is not recommended. Use cautiously in patients with ulcerative colitis or gallstones (biliary colic may be precipitated). Bronchial asthma may occur in susceptible patients.
Adverse Reactions: The drug is generally well tolerated. The most frequent side effects are nausea, gastric irritation, vomiting, diarrhea, constipation, muscle cramps, headache, dizziness and acute gout. Other potential side effects include angina pectoris, anxiety, depression, bradycardia and ectopic cardiac rhythms (especially when used with digitalis), drowsiness, dull sensorium, hyperglycemia and glycosuria, hyperuricemia, lassitude, restlessness, transient myopia, impotence or dysuria, orthostatic hypotension which may be potentiated when chlorthalidone is combined with alcohol, barbiturates or narcotics, leukopenia, aplastic anemia, skin rashes, thrombocytopenia, agranulocytosis, nasal stuffiness, increased gastric secretions, nightmare, purpura, urticaria, ecchymosis, weakness, uveitis, optic atrophy and glaucoma, and pruritus. Eruptions and/or flushing of the skin, a reversible paralysis agitans-like syndrome, blurred vision, conjunctival injection, increased susceptibility to colds, dyspnea, weight gain, decreased libido, dryness of the mouth, deafness, anorexia, and pancreatitis when epigastric pain or unexplained G.I. symptoms develop after prolonged administration. Jaundice, xanthopsia, paresthesia, photosensitization and necrotizing angiitis are possible.
Average Dosage: One tablet daily with breakfast.
Availability: Pink, single-scored tablets in bottles of 100 and 1000.
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For details, please see complete prescribing information.

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RE-6392

WOMAN'S AUXILIARY

to the

IOWA MEDICAL SOCIETY

1969 Annual Meeting, Des Moines

Program Theme: "Evaluation and Rededication"

Fortieth Anniversary Year

MRS. JAMES F. BISHOP, *Presiding*

Sunday, April 27, 1969—Hotel Kirkwood

1:00 p.m. REGISTRATION FOR BOARD OF DIRECTORS—Main Lobby

1:30 p.m. MEETING OF BOARD OF DIRECTORS—Garden Room

6:30 p.m. HOSPITALITY HOUR AND SUPPER for all board members, convention chairmen, husbands and special guests, at the home of Dr. and Mrs. Joseph F. Veverka, Prairie City

Monday, April 28, 1969—Hotel Kirkwood

8:00 a.m.-3:00 p.m.—REGISTRATION—Main Lobby. Luncheon tickets available until 11:00 a.m.

7:30 a.m. SECOND ANNUAL PAST PRESIDENTS' BREAKFAST —Veranda Room

8:00 a.m.-8:45 a.m.—COFFEE AND ROLLS—Arbor Room

9:00 a.m. FORMAL OPENING OF THE 40TH ANNUAL MEETING—Orchard Room
Business session and reports
SEE and TELL—Councilors and county presidents

11:00 a.m. TRIPPING AND FREAKOUT—
Sue Boe, national representative, Pharmaceutical Manufacturers Association, Washington, D. C.
Robert Gibbs, executive director, Iowa Pharmaceutical Association, Des Moines

12:00 noon LUNCHEON—Pioneer Room—Honoring charter members and past presidents
SONG FUN—The Time of Our Lives
Address—Mrs. G. Prentiss Lee, Portland, Oregon, First Vice President Woman's Auxiliary to AMA

1:30 p.m. "Turn On and Turn Out"—Mrs. Howard G. Ellis, North Central Regional Vice President

7:00 p.m. DINNER FOR STATE OFFICERS AND GUESTS (national representative, out-of-state presidents and presidents-elect)

Tuesday, April 29, 1969—Hotel Kirkwood

8:00 a.m.-12:00 noon—REGISTRATION—Main Lobby. Luncheon tickets available until 11:00 a.m.

8:00 a.m.-8:45 a.m.—COFFEE AND ROLLS—Arbor Room

8:00 a.m.-8:45 a.m.—AREA PLANNING SESSION—Orchard Room. All Eastern Area physicians' wives are to attend. Mrs. Henry Boe, presiding.

9:00 a.m. CALL TO ORDER, SECOND SESSION OF 40TH ANNUAL MEETING—Orchard Room
Business session and reports
Memorial service
YOU ARE IMPORTANT—William M. Krigsten, M.D., chairman of Auxiliary Advisory Committee
Installation of 1969-1970 Officers
Inaugural Address—Mrs. Daniel W. Coughlan

12:00 noon LUNCHEON—Pioneer Room—Honoring national representative, retiring president and Auxiliary guests
"The New Music" during luncheon
Presentation of AMA-ERF Awards
Presentation of Volunteer Health Service Award
"What Is Happening on the Hill"—Senator David M. Stanley
Special Luncheon Guests: C. W. Seibert, M.D., President and William F. Krigsten, M.D., President-Elect of the Iowa Medical Society

2:15 p.m. *Hotel Fort Des Moines*—as guests of the Iowa Medical Society
TEEN AGE-ADOLESCENT PROBLEMS—Byron Stinson, M.D., Columbus, Ohio
PANEL DISCUSSION
(Abigail Van Buren, author of the syndicated "Dear Abby" newspaper column, will join the speakers for the open-discussion session.)

6:00 p.m. IOWA MEDICAL SOCIETY PRESIDENT'S RECEPTION AND BANQUET—Hotel Fort Des Moines

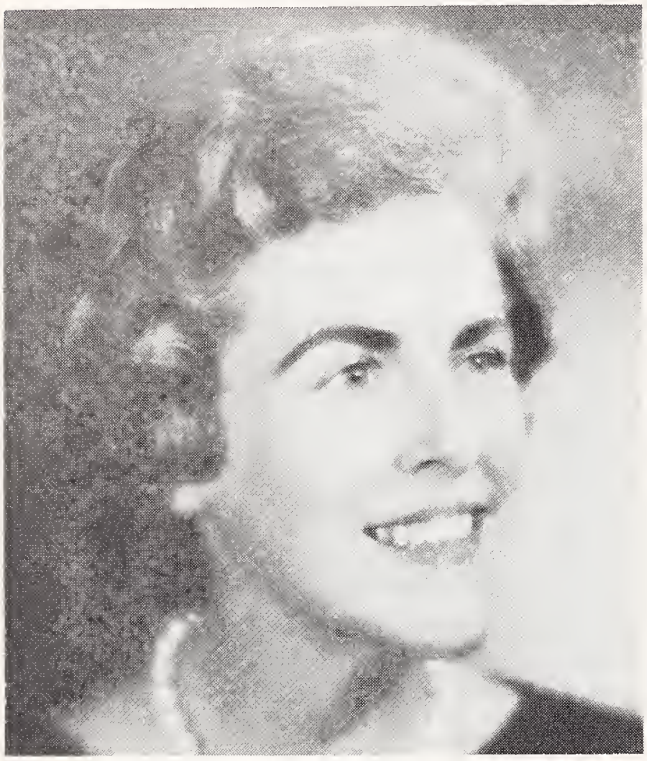
Wednesday, April 30, 1969—Hotel Kirkwood

9:30 a.m. EXECUTIVE COMMITTEE MEETING—West Room

10:00 a.m. BOARD MEETING (Incoming and outgoing chairmen and newly installed officers)—West Room

ALL PHYSICIANS' WIVES ARE WELCOME AT ALL SESSIONS AND AT THE LUNCHEONS

Guest From the National Auxiliary



Mrs. G. Prentiss Lee

Mrs. G. Prentiss Lee, of Portland, Oregon, first vice-president of the Woman's Auxiliary to the American Medical Association and previously for four terms its finance secretary, will be the Iowa Auxiliary's guest at its convention next month.

Although she has three sons, all teenagers, Patty Lee has held an office or chairmanship in her county and state Auxiliary each year since 1955, including the presidency of each. She was timekeeper chairman of the 1961 national convention, she served two years as western regional vice president, and she has been a member of the finance, nominating and structure-review committees.

She is a noted campaign chairman, having earned the pseudo-degree "Doctor of Fund Raising" when she headed Portland's March of Dimes Mothers' March in 1956. She also headed the fund drive for the YMCA and served on the editorial committee that wrote the HANDBOOK OF VOLUNTEER SERVICES FOR NURSING HOMES AND HOMES FOR THE AGED. From 1954-57 she was on the official board of the First Methodist Church serving the education and finance committees. She was also president of the Women's Society of Christian Service, 1955-56, and served on the Board of the Oregon Political Action Committee and the Community Council Health Agency Review Committee. She was a member of the Coordinating Committee on Volunteer Services for the Aged, the editorial committee under the Oregon State Board of Health and her chapter of the PEO.

She is currently president of the Jackson High School PTA, and is a member of the Metropolitan Republicans Club, the Portland Civic Theatre and the Portland Zoological Society.

Dr. and Mrs. Lee are both graduates of Reed College, and Mrs. Lee was a physical education instructor there from 1946 until her marriage in 1949. Dr. Lee has served as president of his county medical society, has been on the board of trustees of the Oregon Medical Association and has been chairman of the OMA Committee on Veterans Affairs and Federal Medical Service.

Mrs. Lee continues to take yearly courses in art and music. She is particularly interested in skiing, golf, tennis, badminton, camping, gardening, books (Northwest history), decorating her new home and, above all, her boys.

Rostrum Ramblings

As it must to all enterprises, inflation has cast its shadow over our Auxiliary. Now that my term as your president is drawing to a close, I feel a freedom I did not feel earlier to talk with you about finances. Those amounts of money which may have been adequate for us just a few years ago no longer permit us to function as we should. We are an important adjunct to our husbands' profession, and we should be able to move more freely in that position, secure from undue concern about money.

When boards and committees come to Des Moines for all-day meetings, ladies who compose them give much of their time and effort in our behalf. When we have guests from medical Auxiliaries of other states or from paramedical Auxiliaries in our own state, I believe their luncheon and dinner tickets and perhaps their hotel bills should be paid for by us.

The various committee chairmen whom we ask to represent us at regional or national meetings should not be expected to go at their own expense, except for a small token allowance. By attending various regional and national meetings to which she is invited, a president-elect gains valuable experience and contacts before she assumes the president's chair. Her time and efforts are expended in our behalf, and she should not be expected to pay her own way.

More funds at our disposal would permit us to undertake a more active program of public education in health affairs and greater participation in service activities of many kinds. These are only some of the things our State Auxiliary could do with a little more money from each of us.

I do not suggest extravagance, but only that we be able to function with the assurance and effectiveness of a proud and alert Auxiliary. I hope that the Board will propose and the House of Delegates approve an increase in our dues that will permit such performance. A slight increase in

state dues would not mean a large amount for any of us. I suspect that many other organizations to which we belong cost more, and yet I believe that no other organization is as important to us as an alert and efficient Auxiliary.

I hope the snow and ice of the winter just past were not too hard on you. A fall on the ice in January cracked a wrist for me, but all is proceeding normally now. I hope you are making plans for the Annual Meeting next month. My best wishes to all of you.

—LENORE BISHOP (MRS. JAMES F.)

Convention Promises

Those of you who have served on the Board of the Woman's Auxiliary to the Iowa Medical Society are enthusiastic about the program for our Annual Meeting to be held April 28-29. A great deal of planning has gone into the arrangements, and we feel it will result in an extremely informative and entertaining experience for those attending.

Your committee has hopes that every Auxiliary member and every prospective Auxiliary member will come to the meeting, not only for the information that will be available, but also to renew old friendships and make new ones.

The program this year contains several discussions of the great current interest to all of us. Emphasis is to be placed on some of the problems facing our young people. Speakers of national prominence and reputation are featured. A panel discussion will be held following the presentation of the formal addresses.

You will enjoy seeing your friends from over the state, as districts and counties report their activities.

At the luncheon on Monday, April 28, the featured speaker will be Mrs. G. Prentiss Lee, of Portland, Oregon, who is the national first vice president.

Refer to the program printed in this issue for the general schedule. More explicit information will be available soon. You are asked now to reserve these days, April 28-29. We shall be looking for you on those days.

—JEAN COUGHLAN (MRS. DANIEL)
President-Elect

Your Project

One of the best ways of publicizing your county Auxiliary's activities during the year will be through an exhibit at the Annual Meeting. If many participate, it will be an excellent means of exchanging ideas. We can all profit from this. Please do participate. Let me know the approximate size of your exhibit, and I will arrange for the space.

Sending us a plan for your exhibit at the Annual Meeting, April 28-29, will assure you the space required.

—RUTH TENNEY (MRS. P. H.)
Exhibit Chairman

Around the Hawkeye State

Black Hawk County

The Black Hawk County Medical Auxiliary Ball, an annual event, was held at the Electric Park Ballroom on February 8. This year's theme was "R_x Once Every Ten Years," a repetition of the first event of its kind held 10 years ago. Proceeds will be used to benefit the county medical health center at the old St. Francis Hospital, in Waterloo.

The program included entertainment by the "Medi-Cats" from 7:30 to 8:30 p.m. Dinner was served from 8:00 to 10:00 p.m., followed by dancing to music by Bruce Young and his orchestra.

Mrs. John L. Kestel and Mrs. J. E. Goldberg, decorations co-chairmen, and their committee were very busy filling many of the "decorations prescriptions" for days before the Ball.

Mrs. Craig Ellyson was general chairman of ticket sales and reservations assisted by Mrs. Robert Swaney and Mrs. Lewis Zager in Waterloo, with Mrs. Rolf Kruse in charge of ticket sales in Cedar Falls. Mrs. Lee Simso was program chairman.

Mrs. William Telfer was general chairman of the Ball. Mrs. John Napier of Waterloo is president of the Black Hawk County Auxiliary.

Boone County

Following a 1:00 luncheon on January 28, Mrs. B. T. Whitaker conducted the business meeting of the Woman's Auxiliary to the Boone County Medical Society and introduced the new officers elected for 1969. They are: Mrs. Ralph Wicks, president; Mrs. Jack Anderson, vice-president; Mrs. Wayne Rouse, secretary, all of Boone; and Mrs. Elfred E. Linder, of Ogden, treasurer.

Mrs. Wicks outlined many projects in community, county and national health service in which the members will actively participate.

Dallas-Guthrie

Dr. and Mrs. K. M. Chapler and Dr. C. R. Osborn were hosts to the January meeting of the Dallas-Guthrie Medical Society and Auxiliary at the Library Hall in Dexter. A joint social hour and dinner preceded separate meetings of these two groups. Mrs. William Seidler, Jr., of Jamaica, president, presided at the Auxiliary meeting. Mrs. Joseph Song, Des Moines was a guest. Mrs. K. M.

Chapler who has been appointed to revise the Bylaws presented for discussion the articles which she had researched. A draft of the revisions will be presented at the next meeting with the ultimate goal of printing.

Polk

The Polk County Auxiliary continues its numerous health activities. A check in the amount of $50.00 was sent to the Iowa Society for the Prevention of Blindness. The net results from the annual Holiday Greeting Card Project were most gratifying and were distributed as follows:

AMA-ERF, $800.02; Camp Sunnyside Campship, $97.50; Meals Service, $292.52; YWCA, $400.00 (Balance on $1,000.00 pledge for a ramp); WA-SAMA at Iowa City, $10.00.

Mrs. Allan Phillips received a plaque from the Polk County Medical Society at its annual meeting in recognition of her work with Homemaker Service at the national as well as the county level.

Auxiliary members met at the home of Mrs. John Green, the International Health chairman, to make Johnny coats, draw-sheets, crib-sheets, etc., for the International Health project.

The Auxiliary assisted the Polk County Medical Society in entertaining foreign students interested in medical or paramedical careers at a luncheon March 1, during the Foreign Student weekend. This is an annual affair in Des Moines for foreign students attending Iowa Colleges. Mrs. Stewart Olson and Mrs. Joseph Song were in charge of arrangements.

The Vision Screening workers continue helping screen the pre-schoolers and nursery school pupils.

The annual Health Careers Tea will be held on March 7 at Mercy Hospital this year. Health Career pins are given on this day to students who have earned them through activities set up by the Health Career Clubs in the county.

The members will observe Doctor's Day on March 24 by making personal visits and giving a red carnation to each of the retired and/or ill doctors in the county.

Scott County

Scott County Medical Auxiliary has had many interesting programs and community projects this year.

A speaker at one of its fall meetings explained the new work being done in the Friendly House neighborhood. The process by which the staff assists people in finding solutions and outside help for their own problems and needs was explained. The proceeds this year from the Doctor-to-Doctor Christmas Greeting Card designed by member-artist, Mrs. Erling Larson, will benefit Friendly House, East Pilot Project.

A new project, meals service to shut-ins, sponsored by the Citizens Committee, has several Auxiliary members helping deliver a hot meal each day prepared at Mercy Hospital. Auxiliary members Mrs. R. A. Anrode, Mrs. J. F. Bishop, and Mrs. W. S. Pheteplace helped with the planning and implementation of this worthy project.

The Dental Wives in Scott County were entertained at a tea in November at the home of Mrs. Pheteplace, with Mmes. McKay, Edgerton, Swearingen and Holte assisting. A speaker from the Citizens Committee for Decent Literature and Motion Pictures emphasized the need for parents to know what their children are reading. She suggested that at present, our letters and comments to merchants who sell the offending products, but who are also vulnerable to public pressure, are the best means of helping diminish this cultural blight.

Other active projects of the Scott County Auxiliary are fund raising for AMA-ERF and International Health activities, as recommended at the state and national levels.

District X

District X has no organized Auxiliaries but does have many interesting personalities and doctors' wives active in their communities.

Mrs. Ralph H. Viner of Leon, a member-at-large, is president of the Iowa Federation of Women's Clubs. She recently attended a regional community improvement program seminar at the University of Iowa.

The seminar was designed to teach techniques of community development to clubwomen who are officers of their district and state federations of women's clubs. The people present learned how to identify and work toward solving community problems.

Letters Our Mental-Health Chairman Hasn't Seen Yet

(With apologies to our National Mental Health chairman, Mrs. Ford, for our free adaptation.)

Dear Editor:

I have been taking a well-known tonic for my iron-poor-tired-blood, but today I went down to get my money back. Instead of a refund they offered me free advice worth the purchase price of one bottle of their product. They suggested I see a psychiatrist. Now, dear Editor, this should be simple; my husband is a psychiatrist, but like my dentist, he can't give me an appointment until the middle of January, 1970. What shall I do?

STILL TIRED

Dear Still Tired:

Why do you think Mrs. Bones, the orthopedist's wife, has put up with low back pain all these years? Observe Mrs. Hives; she is cheerful about her rash, though her allergist husband insists she wear long-sleeved high-necked dresses in public. Mrs. Multipara, the obstetrician's wife, was a good

sport when her baby was delivered by a policeman on the corner of 6th and Main. Mrs. Suture, the surgeon's wife, has recovered nicely from her ruptured appendix. Think positively—buy a new hat, this often relieves fatigue, and when your husband gets the bill, he may give you an earlier appointment. Remember you are not alone. In fact, our state president who has trouble even reading this paper, suggests that you bring up your problem at the state meeting during the Mutual Problem Period at the workshop on April 28. You're first on the agenda.

Good Luck! Yours for Mental Health.

Legislative Ladies Entertained

If you were unable to be present at the recent 1969 "continental breakfast" honoring the wives of the executive cabinet and the Iowa Legislative Ladies, you missed a delightful event. Nearly 200 Auxiliary members and guests attended.

Dr. Elmer Smith showed slides taken during his tour of duty as chief health officer in Da Nang Prefecture, Vietnam.

Mrs. Howard Ellis was general chairman, and Mrs. Paul Cash was chairman of the breakfast committee.

AMA-ERF Fund Raising Projects

Note Paper

Playing Cards

Mrs. R. L. Wicks, Chairman

204 South Story Street, Boone 50036

or

Woman's Auxiliary Office

1001 Grand Avenue, West Des Moines 50265

WA-SAMA

WA-SAMA (Woman's Auxiliary to the Student American Medical Association) has come to mean many different things to the wife of the Iowa medical student. To the wife of the incoming medical student, it means a friendly welcome and helping hand from an organization made up of girls with similiar goals and interests. This initial gesture of friendship was made this year through informal coffees and also the Fall Tea in September. At the Fall Tea, the new member was also introduced to the Iowa and National Medical Auxiliaries by our guest speaker, Mrs. J. F. Bishop, president of the State Auxiliary. From that first step, many girls go on to find meaningful involvements in WA-SAMA.

Just as her husband is endeavoring to prepare himself for service, the WA-SAMA member also realizes the importance of preparing herself to accept the responsibilities of the future physician's wife. Therefore, the speakers at our monthly meetings are usually physicians speaking on various medically oriented topics.

Service to others, as well as ourselves, is another meaningful goal to the WA-SAMA member. We have found many personal rewards in our bi-monthly visits to the Johnson County Home, offering crafts and friendship to appreciative patients. Other service projects have included preparing an Easter care package for a needy family and supporting a medical-student scholarship.

The social aspects of WA-SAMA fill a special need for the medical student's "widow." The annual Fall Tea, Spring Luncheon, children's Christmas party, senior farewell, bridge, swimming and similar activities help to fill the many empty hours while our husbands are at the hospital.

The MEDIGRAM, our chapter newsletter, and the regional and national conventions serve as links in the Iowa WA-SAMA chapter.

Even though we realize that these training years are some of the best, we still look forward to the time when we reach that milestone where we shall be able to join our "ma-ma" organization, WA-AMA. Until that time, we want to express our sincere appreciation for the interest and help that is given to us by WA-AMA and WA-IMS.

—MRS. DARYL DOORENBOS (ELAINE)
Iowa WA-SAMA President

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

President—Mrs. J. F. Bishop, 212 Hillcrest Avenue, Davenport 52803

President-Elect—Mrs. D. W. Coughlan, 5410 Grand Avenue, Des Moines 50312

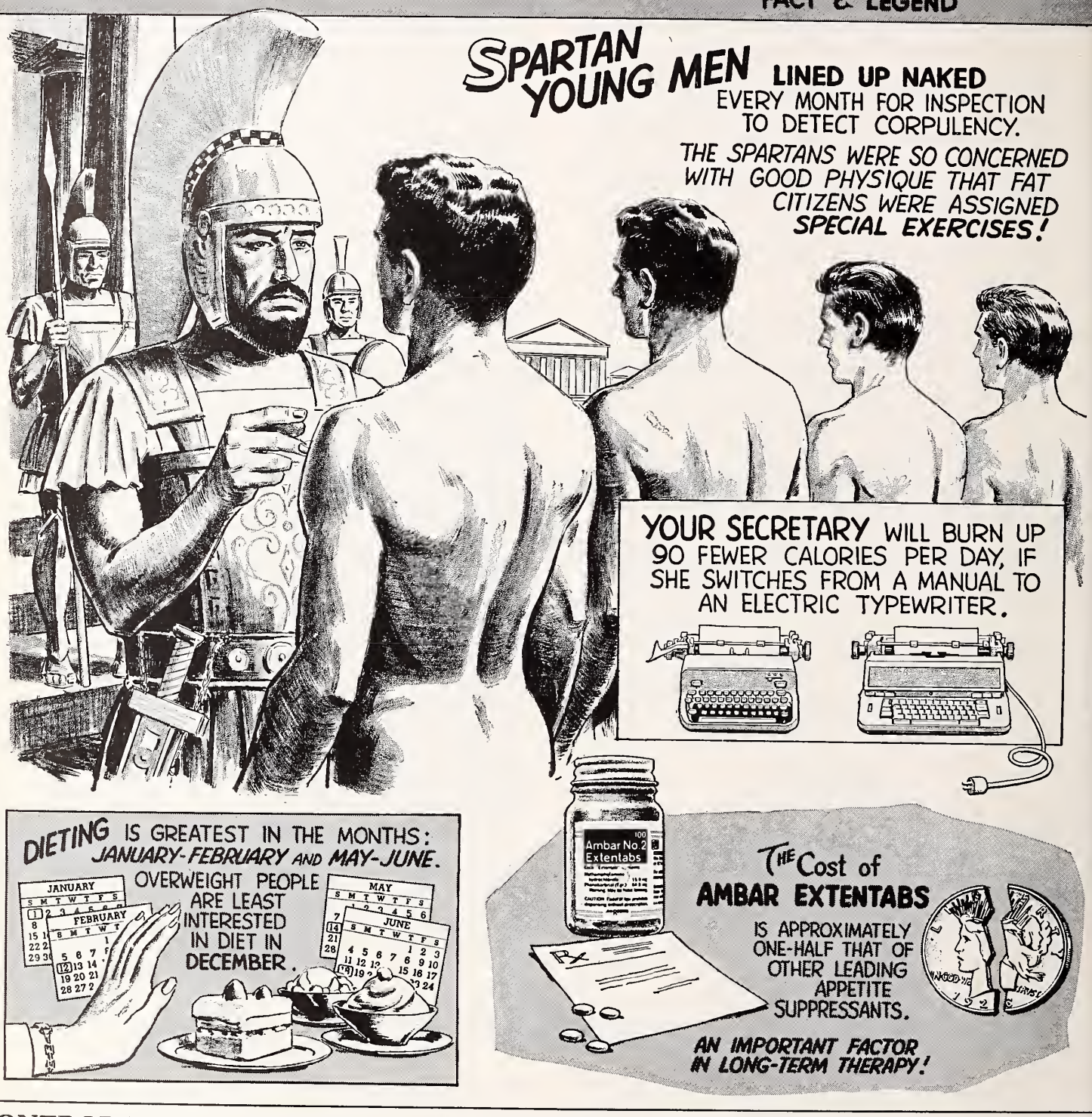
Recording Secretary—Mrs. E. D. Wiley, 30 West Kings Highway, Sioux City 51104

Treasurer—Mrs. J. F. Veverka, Box 324, Prairie City 50228

Editor of THE NEWS—Mrs. W. B. Eidbo, 1415 Thompson Avenue, Des Moines 50316

Assistant Editor—Mrs. D. A. Mater, 302 South Fourth Street, Knoxville 50138

The AMBAR SCRAPBOOK of Obesity Oddities
FACT & LEGEND



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(Warning: may be habit forming).

One Ambar Extentab before breakfast can help control most patients' appetite for up to 12 hours. Methamphetamine, the appetite suppressant, gently elevates mood and helps overcome dieting frustrations. Phenobarbital, the sedative in Ambar, controls irritability and anxiety...helps maintain a state of mental calm and equanimity. Both work together to ease the tensions that erode the willpower during periods of dieting.

Also available: Ambar #1 Extentabs®—methamphetamine hydrochloride 10 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

BRIEF SUMMARY/**Indications:** Ambar suppresses appetite and helps offset emotional reactions to dieting. **Contraindications:** Hypersensitivity to barbiturates or sympathomimetics; patients with advanced renal or hepatic disease. **Precautions:** Administer with caution in the presence of cardiovascular disease or hypertension. **Side Effects:** Nervousness or excitement occasionally noted, but usually infrequent at recommended dosages. Slight drowsiness has been reported rarely. See package insert for further details.

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See next page for prescribing informati



You've made it one of your specifics in acute otitis media

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DECLOMYCIN acts against many strains of H. influenzae, pneumococci and streptococci, the most common invaders. In otitis media, where it is difficult to isolate the causative organism, this coverage may be important. However, some strains may be resistant and other pathogens can be involved.

You've found the high serum levels of DECLOMYCIN important, too. Its prolonged action permits convenient 300 mg b.i.d. or 150 mg q.i.d. administration.

When specimens are obtainable, your culture studies will indicate the usefulness of DECLOMYCIN.

Effectiveness: DECLOMYCIN Demethylchlortetracycline should be equally or more effective therapeutically than other tetracyclines in infections caused by organisms sensitive to the tetracyclines.

Contraindication: History of hypersensitivity to demethylchlortetracycline.

Warning: In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated, and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort. Necessary subsequent courses of treatment with tetracyclines should be carefully observed.

Precautions: Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

Side Effects: Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes; a rare case of exfoliative dermatitis has been reported. Photosensitivity; onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose-related. Transient increase in urinary output, sometimes accompanied by thirst (rare). Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth—dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Demethylchlortetracycline may form a stable calcium complex in any bone-forming tissue with no serious harmful effects reported thus far in humans.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products. Treatment of streptococcal infections should continue for 10 days, even though symptoms have subsided.

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Capsules: 150 mg; **Tablets:** film coated, 300 mg, 150 mg and 75 mg of demethylchlortetracycline HCl. 398-8

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Contraindications: Porphyria or sensitivity to barbiturates.

Precautions: Exercise caution in moderate to severe hepatic disease. Elderly or debilitated patients may react with marked excitement or depression.

Adverse Reactions: Drowsiness at daytime sedative dose levels, skin rashes, "hangover" and systemic disturbances are seldom seen.

Warning: May be habit forming.

Usual Adult Dosage: As a daytime sedative, 15 mg. (¼ gr.) to 30 mg. (½ gr.) t.i.d. or q.i.d.

Available for daytime sedation: Tablets, 15 mg. (¼ gr.), 30 mg. (½ gr.); Elixir, 30 mg. per 5 cc. (alcohol 7%).

BUTICAPS® [Capsules BUTISOL SODIUM (sodium butabarbital)] 15 mg. (¼ gr.), 30 mg. (½ gr.).

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If you think the pink pill for U.R.I. symptoms is built for speed and endurance you're on the right track.

Here is a tablet that begins to relieve symptoms of upper respiratory infection quickly—a tablet that works for hours to make it easy for your patient to enjoy continuous relief.
Novahistine Singlet combines effective dosage of an antipyretic-analgesic with a vasoconstrictor-antihistamine formulation to relieve not only the congestion, but also the fever and the aches and pains that almost always accompany upper respiratory infections.

A total daily dosage of 3 or 4 tablets will normally provide the continuous relief your patient expects. Use with caution in patients with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result.

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(Each tablet contains: phenylephrine hydrochloride, 40 mg.; chlorpheniramine maleate, 8 mg.: acetaminophen, 500 mg.)

DOW



Help the Needy!

This patient may appear to "have everything" but, like so many people getting along in years, she may well be in need—*medically*. Though there is no evidence of organic disease, she does have symptoms (fatigue, vague aches and pains, malaise) that may be indicative of—

a need to maintain anabolic balance... to counteract declining gonadal hormone secretion and forestall premature degenerative changes related to estrogen deficiency;

a need for mood elevation... to impart a gentle emotional uplift;

a need for nutritional supplementation... to compensate for the poor eating habits and subsequent dietary insufficiency of so many older people.

For these needs, consider MEDIATRIC for your next "needy" patient... medically.

MEDIATRIC provides specific agents to fulfill a need in the three areas:

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	Each MEDIATRIC® Tablet or Capsule contains:	Each 15 cc. (3 teaspoonfuls) of MEDIATRIC® Liquid contains:
Conjugated estrogens-equine (PREMARIN®)	0.25 mg.	0.25 mg.
Methyltestosterone	2.5 mg.	2.5 mg.
Methamphetamine HCl	1.0 mg.	1.0 mg.
Cyanocobalamin	2.5 mcg.	1.5 mcg.
Intrinsic factor concentrate	8.0 mg.	—
Thiamine HCl	—	5.0 mg.
Thiamine mononitrate	10.0 mg.	—
Riboflavin	5.0 mg.	—
Niacinamide	50.0 mg.	—
Pyridoxine HCl	3.0 mg.	—
Calcium pantothenate	20.0 mg.	—
Ferrous sulfate exsic.	30.0 mg.	—
Ascorbic acid	100.0 mg.	—
		Contains 15% alcohol† † Some Loss Unavoidable.

Contraindication: Carcinoma of the prostate, due to methyltestosterone component.

Warning: Some patients with pernicious anemia may not respond to treatment with the Tablets or Capsules, nor is cessation of response predictable. Periodic examinations and laboratory studies of pernicious anemia patients are essential and recommended.

Side Effects: In addition to withdrawal bleeding, breast tenderness or hirsutism may occur.

Suggested Dosages: *Male and female*—1 Tablet or Capsule, or 3 teaspoonfuls Liquid, daily or as required.

In the female: To avoid continuous stimulation of breast and uterus, cyclic therapy is recommended (3 week regimen with 1 week rest period—Withdrawal bleeding may occur during this 1 week rest period).
In the male: A careful check should be made on the status of the prostate gland when therapy is given for protracted intervals.

Supplied: No. 752—MEDIATRIC Tablets, in bottles of 100 and 1,000.
No. 252—MEDIATRIC Capsules, in bottles of 30, 100, and 1,000.
No. 910—MEDIATRIC Liquid, in bottles of 16 fluidounces.

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THE DOCTOR'S BUSINESS



Professional Corporations

HOWARD BAKER
Waterloo

Over the past 10 years there has been a moderate amount of interest in Professional Corporations. Today, with court decisions in many states holding that these corporations are legal and valid —and with many more favorable decisions expected soon, this interest is increasing rapidly.

Back in 1951 a group of physicians in Montana reorganized their clinic partnership to an entity entitled "The Kintner Association." Their legal advisors interpreted this association to be taxable under federal law as a corporation. In conjunction with this association the Kintner group established a profit-sharing trust and made tax-sheltered contributions to it. In 1953 the Internal Revenue Service denied corporate tax status to the Association, and disallowed the members' contributions to the profit-sharing trust. In 1954 the District Court in Montana reversed the Internal Revenue Service and allowed the profit-sharing trust contributions. Subsequent appeal upheld the original decision.

Since 1954 a majority of the states have adopted "Professional Corporation" Acts permitting professional persons to organize and practice as a special corporation. In that period a number of corporations or associations have been able to get the IRS into court and have defeated it each time. At the present time there are a substantial number of cases pending against the IRS, and the legal precedent for overruling the IRS is growing. It is generally felt that no court, in any state which permits professional corporations or associations, would rule in favor of the IRS unless there was a significant flaw in the organization of the corporation or association.

Some states that have professional corporation or association laws are: Arizona, Arkansas, Colorado, Illinois, Kansas, Minnesota, Missouri, New Mexico, North Dakota, Oklahoma, South Dakota, Texas and Wisconsin.

Mr. Baker is a partner in Professional Management Midwest, and manager of its Retirement Planning Department. He majored in accounting and business administration at S.U.I., and was an agent of the U. S. Bureau of Internal Revenue for 3½ years before forming his present association in 1953.

The only states in this part of the country which do not have specific laws permitting professional corporations are Iowa and Nebraska. It is probable that these two states will pass professional corporation laws—possibly in 1969. Until Iowa passes one, doctors here are advised to take no action.

COMPARISON OF CORPORATION AND SERP

What is so great about the professional corporation, and why does anyone want to incur the related problems when we now have a self-employed retirement plan law? The major reasons lie in the differences between the two types of retirement plans available. In order to understand these differences we should compare them one-by-one.

First is the matter of cost and difficulty in establishing a corporate plan as compared to a self-employed retirement plan.

With a professional corporation or association it is necessary to draw up a charter, bylaws and employment contracts, to draw up property-transfer documents and to issue stock. After the organization is created it is then necessary to draft a pension or profit-sharing trust. Legal and organization costs—in the absence of unusual problems—are estimated at $2,000-$3,000 the first year. After the first year, legal and accounting fees and trust management fees will probably start at $500-$600 during the initial years, and grow to $1,200-$1,500 or more in later years as the trust accumulates more assets. During the first 10 years of operation a corporation making $30,000 of annual contributions to the trust would probably incur $15,000 of additional costs.

In addition to cost, the corporate way of life is more formal and time-consuming. The formality and complexity of the corporation will cause more reliance on legal and accounting experts. Stockholder meetings and minutes, directors' meetings, resolutions and minutes, and corporate accounting are all more time-consuming. The corporate way of life also places more management power in the hands of officers and directors, and takes it away from the individual.

As contrasted to the corporation, partners wanting to establish a self-employed retirement plan can make their decision today, establish their plan tomorrow and have it approved in a matter of a few weeks. There will ordinarily be no legal fees and no accounting problems, and the costs are $5-$10 annually for maintenance, plus a few cents per participant, per transaction and a $2-$5 charge for each distribution made. Total 10-year costs for a self-employed retirement plan would probably be less than $200.

From the standpoint of cost and difficulty of establishment, the self-employed retirement plan has a tremendous and unquestionable advantage.

Second, as for the status with IRS, the corporate plan has none today. IRS still refuses to allow either corporate taxation or retirement plan deductions to the professional corporation. At this moment the decision must be rendered by the tax courts. While the odds are tremendously in favor of the taxpayer, ultimate victory is time-consuming, and litigation could add $1,000-$2,500 to the costs of having a corporation. For corporations organized now and in the future, it is probable that this problem will be overcome. It seems almost certain that IRS will have to concede soon.

For the self-employed retirement plan, the status with IRS is clear, simple and fast. With "master plans" already approved, individual approval can be secured quickly and generally without cost.

Here again, the advantage is heavily in favor of the self-employed retirement plan.

Third—what are the requirements for coverage for employees? Under a self-employed retirement plan there is very little option. Every full-time employee with three years of employment must be covered. This permits you to eliminate only part-time and seasonal employees.

Under a corporate plan, a great deal more restriction can be imposed upon eligibility for coverage:

1. You can impose a minimum age—generally up to age 30.
2. You can impose a longer employment requirement—up to 5 years.
3. You can impose a maximum age—generally not less than age 60.

There is a requirement that the plan must include 70 per cent of total employees, reduced by the number otherwise eligible who do not meet the length-of-employment requirement.

Obviously, the requirement for coverage under a corporate plan can be a great deal more flexible and restrictive, and this greater flexibility gives it a clear advantage over a self-employed retirement plan.

Fourth—the difference in allowable contributions under the two plans is great. Under the self-employed retirement plan a dual maximum of 10 per cent and $2,500 annually is imposed.

Under a corporate profit-sharing plan the maximum is 15 per cent with no dollar limitation, and any year when the contribution is less than 15 per cent, the deficit can be accumulated and carried over to future years.

To illustrate the vast difference in these two provisions, let's assume that there are four doctors with $260,000 of earnings with four eligible employees earning a total of $18,000. The doctors' top tax bracket is 53 per cent.

Under a 4 per cent SERP they would contribute $720 for their employees, at an after-tax cost of $340. For themselves, they would contribute $10,000, realizing $5,300 of tax savings. Their net savings would be about $5,000.

Under a corporate plan they would contribute 15 per cent of $18,000 or $2,700 for their employees at an after-tax cost of about $1,270. For themselves they could contribute $39,000, realizing nearly $21,000 of tax savings. Their net savings would be nearly $20,000.

In addition to the initial advantage of much greater contributions, these doctors would have the added significant advantage of a tax shelter for their earnings on $39,000 annually, instead of on $10,000 annually. On a 20-year basis, the earnings on a $10,000 annual contribution would be about $168,000; on $39,000 annually, the 20-year earnings would be $655,000. The tax deferral on earnings at 53 per cent would be about $89,000 over 20 years under a self-employed retirement plan, and would be $347,000 under a corporate plan.

In this example a SERP would result in a deferral of a total of about $195,000 tax in 20 years, and under a corporate plan in a deferral of about $760,000 tax in the same period.

These figures speak loudly and clearly the vast difference between the contribution provisions of the two plans.

Fifth—terminations and withdrawals under the two types of plans are quite different. Under the SERP, except in case of death and disability, an owner cannot withdraw his accumulation prior to age 59½. Even if the plan itself is terminated, the owner's accumulation must remain to age 59½.

Under a corporate plan any employee (including any of the doctors) who terminates his employment at any time can withdraw his accumulation, and if the entire plan is terminated, all participants, including the owners, will receive their accumulations.

This factor enables the corporate plan to provide more freedom, and significantly avoids the "locked in" feature of the SERP.

Sixth—the completely different tax treatment of lump-sum distributions under the two plans is one of the most significant factors in evaluating them. Under a SERP a lump-sum distribution is taxed as ordinary income with a five-year averaging provision.

Under the corporate plan, lump-sum distributions are taxed as long-term capital gains.

For example, assume a doctor age 60 has accumulated $150,000 in a retirement plan and now wants to withdraw this amount in a lump sum in

a year when he has $32,000 taxable income from other sources.

Under the SERP the tax on the lump-sum distribution would be $73,500. Under the corporate plan the tax on the lump-sum distribution would be $37,000—a savings of $36,500, or nearly 50 per cent in favor of the corporate plan. This difference is especially significant in view of the much larger accumulations for the doctors under the corporate plan. It will not be unusual under a corporate plan, running 15-25 years, for high income doctors to have accumulations of anywhere from $200,000-$400,000.

Under both SERP and corporate plans, periodic or monthly payments distributed to participants are taxed as ordinary income when received.

Seventh—vesting provisions are much different under the two plans. Under the SERP vesting must be immediate and must be 100 per cent. There is no exception to this rule.

Generally, under a corporate plan vesting is granted on a graduated basis. In general, 10 years is the maximum period permitted for complete vesting. Vesting can be deferred for a period of years up to 10 and then given 100 per cent. Vesting can be graduated—for example, 10 per cent each year for 10 years. Vesting can be a combination—for example, nothing the first 4 years, 50 per cent the fifth year and then 10 per cent each year to 100 per cent.

Some corporate plans provide 100 per cent vesting the first year, but the flexibility of vesting options is a definite advantage.

GUIDELINES

From the preceding information it is quite obvious that under the right circumstances, a professional corporation can offer some substantial and attractive tax-saving advantages to a group of doctors.

First, as we have said, the Iowa Legislature will need to have passed the requisite enabling legislation. The following, like the foregoing, assumes the completion of that action.

As consultants, we have established some guidelines or criteria for advising our clients to investigate the merits of incorporating:

(1) A group should have a minimum of three doctors and four is preferable. Even though a few states permit one doctor to incorporate, it is generally felt that a one-man corporation cannot presently be defended before the IRS and even the more liberal courts.

(2) We feel that the group should have average profit per man of at least $35,000, with no one in the group lower than $30,000. This "guideline" is arbitrary, subject to our findings on the "Retirement Plan Worksheet." The higher the profit, the more tax advantage is available. Average income of $60,000-$70,000 per doctor presents an ideal situation.

(3) In addition to an average income of $35,000 or more, the doctors should collectively be willing and able to contribute at least 10 per cent of their earnings to a profit-sharing plan. If the doctors average $40,000 income, their tax bracket will be about 42 per cent. This means an average annual contribution of $4,000-$6,000 per doctor with $1,600-$2,400 representing tax saved and $2,400 to $3,600 "after-tax" investment. If all doctors cannot agree on this commitment, there is no point in proceeding with a corporate plan.

(4) The doctors should be fully aware of the present conflict with IRS and of the possibility of their having to engage in a court battle to win their position. If they are not willing to face this problem, they had better not proceed.

(5) The doctors should presently be in partnership practice together, so that they know they can practice successfully as a group. Some people are advocating the combination of several solo practices into a professional corporation. Experience has proved that the mortality of this type venture is extremely high, since the doctors have not established success in group practice and incorporation is not an adequate reason for forming a new group.

If your group of doctors meets these five tests, and if you want to investigate the possibility of a professional corporation, a "Feasibility Study" should be completed next.

If the feasibility study is favorable, your group should next engage a legal firm with specific experience in establishing professional corporations and profit-sharing trusts. The extent and quality of competent legal counsel to organize and follow up will probably determine the success of the organization in defending itself before the IRS and the tax court.

MASTER OR PROTOTYPE PLANS

The most recent development in corporate pension and profit-sharing plans is the adoption by IRS of a plan to approve Master or Prototype plans in much the same manner as it does for SERP's.

Effective January 2, 1969, IRS began issuing approvals for master or prototype corporate pension or profit-sharing plans. This means that if an employer (corporate) wants to use an approved master plan, the process for applying for approval of its individual plan is being greatly simplified. In the case of a master-profit-sharing plan, the provisions will be standard except for length of service, contributions, vesting and a few other variables.

Once IRS recognizes "professional corporations," this procedure should speed and simplify the approval process greatly. Within the next several months it can be anticipated that the major investment funds, banks and insurance companies will have approved master plans.

This is a major development in corporate retirement plans, since the "master plan" concept has never been used before.

NATIONAL MEDICOLEGAL SYMPOSIUM · 1969



MARCH 13, 14 & 15
LAS VEGAS, NEVADA

SYMPOSIUM PROGRAM TOPICS:

- **"Who Wants to Pay Unnecessary Taxes?—The Case for Planning"**
- **"Risks and Rewards of Professional Corporations"**
- **Medicolegal Vignette—"Getting Away with Murder"**
- **"Disability—What Kind and How Much"**
- **"Life, Death and Human Transplantation"**
- **"How to Avoid Malpractice Liability"**
- **"Two-Act Vignette—"Pretrial Screening of Malpractice Claims"**

Hotel accommodations are limited and early reservations are essential. Rooms held for registrants at the 1969 National Medicolegal Symposium will not be assigned until the applicant's registration for the Symposium has been verified. Hotel reservations can be made through the Housing Office at the hotels listed below, at the daily rates listed:

Caesar's Palace, 3570 Las Vegas Boulevard, South 89109
$14 to $24, Suites $25 to $70

The Flamingo Hotel, Las Vegas Strip 89109
$14, $16, $18, $20. Suites $45 to $70

The Sands, 3355 Las Vegas Boulevard, South 89109
$16, $18, $20, $22

The Hotel Tropicana, P.O. Box 14460 89114
$16, $18

Registrants wishing to stay at other hotels or motels must make reservations directly with the establishment concerned.

Please indicate single or double room, choice of room rates, and time and date of arrival and departure. A confirmation notice will be sent directly by the hotel. Mail requests to Housing Bureau, 1969 National Medicolegal Symposium, Caesar's Palace, 3570 Las Vegas Boulevard, South 89109

REGISTRATION CARD

Please register me for the Symposium. My check or money order for forty dollars ($40) is enclosed as my registration fee, including the Friday luncheon and the cost of the printed proceedings. I understand that this fee cannot be refunded if notice of cancellation is received by the ABA after March 3, 1969.

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Address _____

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Check one: Physician_____ Attorney_____ Other_____

Please reserve _____ extra tickets for the Luncheon ($5.50 per person). My check for $ _____ is enclosed.

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Make check or money order payable to 1969 National Medicolegal Symposium, c/o the Division of Legal Practice and Education, ABA, 1155 E. 60th St., Chicago, Ill. 60637, together with the registration card.

—SPRING TONIC FOR IMS MEMBERS—

1969 ANNUAL MEETING IOWA MEDICAL SOCIETY

- *Monday, April 28: Imaginative Approaches to the Delivery of Medical Services to the Rural Community*
- *Tuesday, April 29: Adult-Adolescent Hang-Ups*
- *Tuesday, April 29: Abigail Van Buren— "Dear Abby" of the Newspapers Annual Banquet Speaker*

— APRIL 27 to 30 — DES MOINES, IOWA

—MARK YOUR CALENDAR • PLAN TO ATTEND—

ADMINISTRATION OF RETIREMENT PLAN

Effective administration of a retirement plan is the nondelegable responsibility of the board of directors of the corporation. While the details of the operation of the plan may be (and usually are) delegated, the corporation cannot evade the fundamental responsibility of regularly ascertaining that the delegated functions are properly performed. This distinction is very important, particularly in the typically small professional corporation where the doctors rarely possess either the knowledge or inclination to supervise the administration of the plan closely and where, as a rule, none of the corporation's employees possess the specialized knowledge required for this activity. Accordingly, it is very important for the corporation to designate an individual or firm to be responsible for the coordination and execution of administrative activities; it is equally important that the board of directors require the designated administrator to provide the board with periodic, detailed reports concerning the status of the various functions. In some cases, the trustees appointed (if a trusteed plan is used) may also have primary assignments for administration of the plan.

Some specific areas of plan administration are:

(1) *Selection and Appointment of Trustee.* A trustee must be selected by the board of directors (with or without the counsel of an independent administrator) who will adequately accomplish the objectives set by the corporation. The performance of the trustee must be reviewed periodically, particularly if the trustee has complete discretion concerning the investment of funds. In this connection, a trustee should not be asked to invest retirement plan funds without the benefit of a directive from the corporation which establishes goals and objectives, nor should the trustee be permitted to manage funds without being held accountable for performance.

(2) *Plan Design Evaluation.* In addition to the original formulation of the retirement plan, it is necessary to review and evaluate the provisions of the plan at regular intervals to determine whether the objectives of the plan are being accomplished and to make sure that the plan accommodates new developments in regulations and procedures. Needed amendments to the plan, either in language or constructive content, should be made promptly.

(3) *Bookkeeping and Reporting.* Efficient systems must be established and maintained to gather and accumulate the information required for the successful administration of the plan. Dates of employment and termination, birth dates, Social Security numbers, compensation, hours worked and other similar data must be promptly, accurately and permanently recorded to avoid the erroneous inclusion or omission of employees from the plan, improper contributions or benefits, etc. Timely enrollment of newly eligible employees and the execution of employee beneficiary designation forms are essential.

(4) *Administration of Benefits.* Benefit payments, of course, must be paid promptly when due. However, provision must be made for the orderly payment of the benefits in order to avoid unnecessary activity and expense for the corporation. Subject to careful consideration are such elements as specifying valuation dates and methods, timing and frequency of benefit payments, maintaining liquidity for anticipated benefit payments, providing maximum flexibility for the employee in methods of taking benefits, etc.

(5) *Compliance with Regulatory Requirements.* Reports must be filed on specified occasions with federal and state agencies, notably with the Internal Revenue Service. In addition, information concerning changes in the laws governing employee retirement plans, as well as changes in administrative rulings and procedures, must be obtained and promptly evaluated to determine whether changes in the plan are necessary or desirable.

(6) *Communication With Employees.* To obtain maximum value in terms of employee relations through the retirement plan, the status of the plan—its provisions, benefits, economic progress, etc.—must be effectively and consistently presented to all employees.

None of the listed elements are particularly complex. However, they all require time, specialized knowledge, continuing attention and, above all, identification of who is to perform each function and who is to coordinate the respective functions into an efficient program.

CORPORATE CONSIDERATIONS

The use of a corporate format necessitates certain departures from procedures which are customary in partnerships or sole proprietorships. In addition, there are certain technical aspects of corporate practice which require procedural decisions of some importance. Some of these factors are:

(1) *Doctor Payroll.* Since, in a corporation, all professionals become employees, it is necessary that their compensation be arranged and paid in the same manner as that of any other employee. For example, Social Security and withholding taxes must be withheld from the employee by the corporation. It is usually best for the doctors to have a fixed, specified salary paid under the provisions of an employment contract. Provisions for bonus payments can be made, but random payments to doctor employees should be avoided.

(2) *Employment Contracts.* All professional employees, and perhaps some key nonprofessional employees, should have the terms and conditions of their employment spelled out in a written employment contract. Provisions of the contract should include (but need not necessarily be limited to): (1) compensation arrangement, including basic salary and bonus arrangements, (2) va-

cation provisions, including leave of absence, attendance at professional meetings, etc., (3) provision for disability, either temporary or permanent, (4) provision for proper notice in the event of resignation or in the event of termination of employment by the corporation, (5) details of the rights and obligations of the employee and the corporation in the event of termination of employment, including financial obligations, and (6) provisions for participation in retirement plans and other employee benefit programs.

(3) *Expenses.* Payment of any non-business expenses by the corporation on behalf of an employee should be strictly avoided. If this should happen inadvertently, the employee should immediately reimburse the corporation for the expense. The corporation may reimburse individual employees for certain business expenses incurred, such as automobile travel, entertainment, registration fees at meetings, professional dues, etc. The method of handling and allocating such expenses should be determined and set forth in the employment contracts.

(4) *Subchapter-S Corporation.* A "Subchapter-S Corporation," more formally called a Tax-Option Corporation, is frequently used by the smaller professional corporations.

There are a number of legal requirements which must be met in order to be eligible for the Subchapter-S election. However, as a practical matter, the primary limitation for professional corporations is the maximum of ten stockholders and an important technical matter is the limitation to one class of stock.

The main distinction between a Subchapter-S Corporation and a regular corporation is that the Subchapter-S pays no income tax and, therefore, is taxed in a manner very similar to that of a partnership. Use of Subchapter-S by qualifying professional corporations is often desirable, since some or all of the following benefits may be obtained: (1) Elimination of double taxation under some circumstances, (2) elimination of possible accumulated-earnings tax, (3) greater flexibility in allocation of income among employees, and (4) avoidance of any problems involving whether or not income distributions to doctor employees are considered compensation or dividends.

It should be noted, however, that the regulations involving Subchapter-S corporations are complex and rigid. The tax consequences for failure to observe the formalities or proper procedures can be substantial and unpleasant.

OUTLINE FOR DEVELOPMENT OF A RETIREMENT PLAN

Following are steps which are necessary for the orderly formulation and installation of a retirement plan:

Development Phase

1. Appoint a planning and study committee (primarily necessary only in the larger organizations).

2. Obtain competent advisors. They may include an attorney, an accountant, an insurance actuary, a pension consultant, a management consultant, etc.

3. Provide the advisors with required source documents, such as employee payroll data, financial statements, tax returns, etc.

4. Instruct the advisor to make cost estimates and benefit projections, and request that they prepare and submit illustrative plans. Set a deadline for completion of this activity.

5. Next, the committee decides on plan specifications, and drafts and submits its report to the Board of Directors.

Implementation Phase

1. Obtain approval of Board of Directors.

2. Submit plan to stockholders and obtain their approval.

3. Prepare a written announcement to employees.

4. Obtain approval, if possible, from the Internal Revenue Service.

5. Establish and execute a trust agreement with the trustee; negotiate a contract with an insurance company.

6. Make oral and written presentations to employees. Enroll eligible employees in program.

7. Organize administrative records and procedures.

8. File any necessary reports under the Federal Disclosure or State Registration Acts.

The information contained herein is compiled from sources deemed to be reliable, but its accuracy and that of the opinions expressed is not guaranteed.

Short Courses at Omaha

One of the courses on the April schedule of the continuing education department of the University of Nebraska Medical Center has been postponed. The course on psychiatry will be rescheduled. The date for which the course was originally scheduled, April 28 and 29, conflicted with the annual meeting of the Nebraska State Medical Association.

Recent advances in the management of chronic respiratory diseases will be held Wednesday through Friday, April 9, 10 and 11. Guest faculty will include a team from the Mayo Clinic in Rochester, Minnesota: Dr. Gerald Gleich, allergist, and Dr. David E. Dines, of the chest section. Other guests will include Drs. Kaye H. Kilburn, associate professor of medicine at the Duke University Medical Center, Durham, North Carolina, and Dr. George N. Bedell, University of Iowa College of Medicine, Iowa City.

Registration fee of $50 will cover three luncheons. The course carries 18 hours of credit in the American Academy of General Practice, and it will be conducted in the auditorium of the Nebraska Psychiatric Institute in Omaha.

Iowa Association of Medical Assistants

The Benefits That a Medical Assistant Gains by Belonging to a Professional Association

The need for qualified medical assistants in physicians' offices has become more and more evident as the physician's services have expanded to meet the needs of today's patients. Doctors need competent assistance from qualified assistants because they are physically and economically unable to spend their valuable time on work that they can delegate to trained employees.

Physicians grow busier each year because of the increased health-care needs of the public, and because of the public's growing awareness of the value of preventive medicine, as well as because the population is larger than it used to be.

Medicine is changing rapidly in this scientific age, and the doctor must keep well versed in the latest developments by attending conferences, seminars, etc. There is increased book work in today's medical practice, as a result of our involved tax structure and increasing insurance coverage. Then, there are demands made by civic and medical organizations for physicians to participate in their activities.

Today an experienced and capable medical assistant is an asset, and even is essential to the physician's practice.

In the past, medical assistants found it impossible to obtain formal training for assisting a physician in his practice of medicine. There were courses for nurses, bookkeepers, technicians and secretaries, but the medical assistant was dependent upon her physician employer for much of her training in a few techniques, and she spent hours studying and teaching herself what she hoped would be the right use of terminology, medico-legal principles and other administrative skills that are essential to a smooth-running office.

Today's assistant and her physician employer realize that this type of training is limited and time-consuming, and that it does not prepare her for the top-flight performance a doctor needs in his care of patients and in the management of his office. It was to encourage medical assistants in acquiring a high standard of skills and efficiency that physicians helped young women in forming medical assistants' societies on the local, state and national levels.

Two goals were established by the medical assistants' organizations:

- Better performance as medical assistants through EDUCATION.
- Better rapport with the public through improved public relations between the medical profession and the public.

Medical assistants and physicians have concerned themselves with improving the quality of training available to the office, clinic or hospital assistant who works under the direct supervision of the doctor. Physicians and assistants serve as instructors, advisors and speakers in the teaching programs. There are workshops, symposia, seminars, panels and more informal programs given by experts in the fields of medicine, business, law and insurance. Pre-service training courses and college-credit courses at junior colleges and vocational schools are available in many cities in subjects that are valuable to young women seeking careers in the profession of medical assisting.

Every medical assistant can improve her performance and efficiency if she is willing to apply herself. Her physician-employer can encourage her to do so. He can suggest that she inquire about membership in the local, state and national medical assistants' organizations. Both the physician and the assistant will benefit from her joining. Some of the advantages to the physician are:

- A medical assistant who reflects favorably his performance as a professional employer. (Consider the opposite possibility, too.)
- A medical assistant who reflects favorably the whole of medicine—forms good public relations.
- A medical assistant who promotes better doctor-patient relationships.
- A medical assistant who can relieve the physician of paramedical details.
- A medical assistant who saves the physician time that he can use in studying developments and advancements in medicine, and in participating in civic activities.

All of these advantages can be achieved if the doctor and the medical assistant can communicate and work together.

Some of the advantages that the medical assistant can gain from association membership are:

- It alerts the medical assistant to compare her performance of routine duties with the perform-

in cerebrovascular disorders

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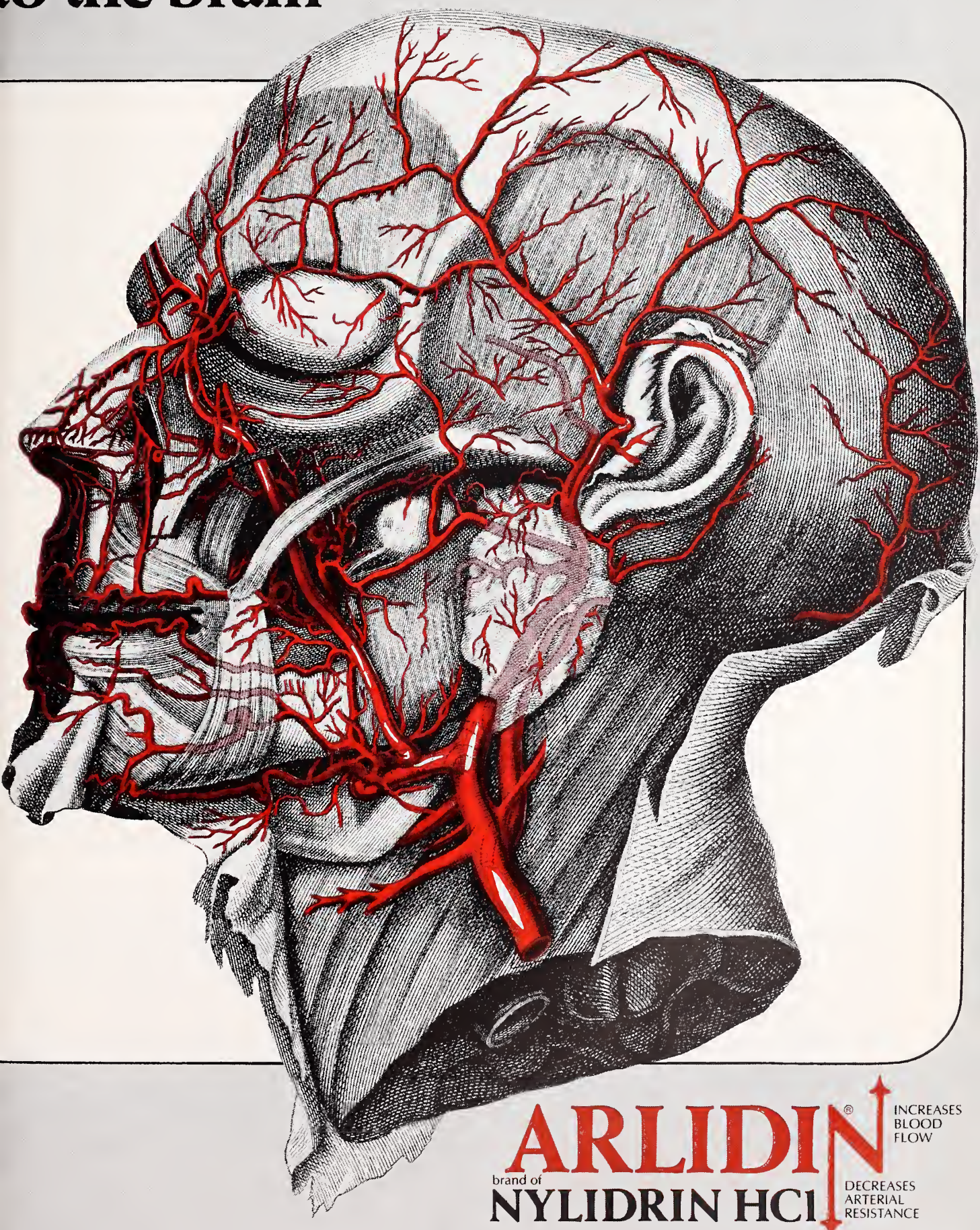
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ance of assistants in model offices, and to improve the caliber of her performance.

- It teaches her that she needs to check her appearance and performance constantly.
- It teaches her the importance of maintaining a pleasant attitude toward patients. That may require self-discipline, at times.
- It teaches her what the patients expect, what her fellow workers and her employer have a right to expect, and how she can reflect creditably upon her profession.
- She will learn ways of correcting difficulties such as poor scheduling of appointments, poor collections, upset or complaining patients, intraoffice frictions, etc.
- It will give her satisfaction and pride to belong to a professional organization.
- She will take increased satisfaction from the performance of tasks that may have seemed routine and dull.

This increased knowledge and this increased psychic income can be achieved only through cooperation between the physician and the assistant. The assistant must know that her employer is interested in discussing the new techniques that she has learned at a meeting or a workshop. The employer must be willing to revise office procedures and to delegate routine duties that the assistant can perform capably after she has received the necessary training.

Communication is the basis for successful achievement. With it, patient care can be improved.

The Iowa Association of Medical Assistants is anxious to help provide medical assistants the finest of help in acquiring new or improved skills —skills that eventually will benefit their physician-employers' patients, and the public in general.

—MARIAN LITTLE

Thirteenth Annual Blank Hospital Pediatric Conference

The Thirteenth Annual Blank Hospital Pediatric Conference, sponsored by the Raymond Blank Hospital Guild, the Division of Maternal and Child Health of the State Department of Health, and the Iowa Chapter of the American Academy of Pediatrics, will be held at the Iowa Methodist School of Nursing, 1100 Pleasant Street, Des Moines, on April 10 and 11, 1969. Registration fee for the entire conference, including luncheons and one banquet ticket, is $30. Registration for one day (including luncheon) is $15. For interns and residents, the registration fee is waived. Doctors' wives are encouraged to attend. Additional luncheon tickets are $2 and banquet tickets $6 each.

Thursday, April 10

9:15 a.m. "The Nephrotic Syndrome," the Lee Forrest Hill Lecture—I. Rubin, M.D., professor of of pediatrics, State University of New York at Buffalo

10:30 "Antimicrobial Therapy"—Heinz F. Eichenwald, M.D., chairman, Department of Pediatrics, University of Texas Medical School, Dallas

11:15 "Current Trends in Immunization"—Samuel L. Katz, M.D., chairman, Duke Universersity Department of Pediatrics, Durham, North Carolina

1:45 p.m. "The Pediatrician's Role in the Prevention of Neurological Disease in Childhood"—William E. Bell, M.D., associate professor, Departments of Pediatrics and Neurology, U. of I. College of Medicine

2:30 PANEL DISCUSSION: Diagnostic and Therapeutic Problems in Nephritis
Lee Forrest Hill, M.D., moderator; Drs. Bell, Eichenwald, Katz and Rubin, participants

4:00 "Total Parenteral Feeding"—James Hopkins, M.D., pediatric surgeon, Raymond Blank Memorial Hospital

6:30 SOCIAL HOUR AND BANQUET—National Motor Inn, 921 Sixth Avenue

Friday, April 11

9:00 a.m. PANEL DISCUSSION: Approach to Hypoglycemia in Pediatrics
Dr. Hill, moderator; Drs. Bell, Eichenwald, Katz and Rubin, participants

10:00 "The Child in Coma—Diagnosis and Management"—Dr. Bell

11:15 "Virus Infections of the Central Nervous System"—Dr. Katz

1:45 p.m. "The Therapy of Infections in the Newborn"—Dr. Eichenwald

2:30 "Recurrent Hematuria"—Dr. Rubin



Personals



Dr. R. E. Blue, of Cedar Falls, a member of the College of Allergists, spoke to the Alumnae Association of the Allen Memorial Hospital School of Nursing, in Dack Hall, Waterloo, on February 3, on "Common Allergies."

Dr. and Mrs. K. M. Chapler and **Dr. C. R. Osborn,** of Dexter, were hosts to the Dallas-Guthrie Medical Society and its Auxiliary at the Library Hall, there, on January 16. The guest speaker, **Dr. Joseph Song,** pathologist at Mercy Hospital, Des Moines, spoke on "Cancer Cells in the Bloodstream."

On the night of January 24, **Dr. John Compton,** of Edgewood, was involved in a automobile collision attributable to ice-covered roads. He was hospitalized overnight suffering from broken ribs and other internal injuries.

On January 23 **Dr. Alfred Brendel,** of Central City, was presented a certificate of appreciation by the Hawkeye Area Community Action Program for starting and maintaining the first well-baby clinic in Linn County. He has gone to the Neighborhood Center, there, on the third Thursday of every month since August, 1967, for that purpose, and the number of children he has seen there at any one time has ranged as high as 45.

The officers of the medical staff at the Grinnell General Hospital have all been reelected. They are **Dr. John R. Parish,** chief-of-staff, and **Dr. H. R. Light,** vice-president, both of Grinnell, and **Dr. Robert Carney,** of Brooklyn, secretary.

Dr. C. F. McClure, a staff member at the Mental Health Institute in Independence, and one of the members of the Waterloo Police Department presented a program on the dangers of alcohol, narcotics, glue-sniffing, etc. at Starmond Senior High School, Strawberry Point, on January 23.



Dr. Coffey

Dr. James L. Coffey was honored, early in February, as Emmetsburg's 1968 Citizen of the Year. The citation read to him included mention of "the good he has done for the people of the community in the 15 years he has lived and practiced medicine" there. Emphasis was put upon his leading role in establishing the Area III vocational school, in Emmetsburg, and his service on the Area III board. In addition he has been a member of the local school board, and since 1962 he has been a member of the State Board of Medical Examiners.

Dr. Max E. Olsen, of Minden, has been named to represent a southwest Iowa district on a board set up by the Ak-Sar-Ben Temple of the Shriners, in Omaha. The members of that board will intensify the Shrine's agricultural, charitable and educational work throughout the area where its members live.



Shown left to right during the presentation of a framed portrait of Drs. W. B. and Faye Lewis are: Mrs. John McMurray, a member of the Hamilton County Hospital board of trustees, Dr. E. K. Lowary of the Hospital medical staff, hospital administrator Jim Morey and the Lewises.

The Wapello County chairman of the Cancer Society's educational and fund-raising drive this year will be **Dr. John E. Rawls,** of Ottumwa.

Dr. S. M. Haugland, of Lake Mills, spoke to the Saturday Afternoon Club, an affiliate of the Iowa Federation of Women's Clubs, at the Holiday Grill, there, about the use and abuse of drugs, January 22. It perhaps is noteworthy that on that occasion the Saturday Afternoon Club began its meeting at 8:00 p.m.

At the Carroll Jaycees' banquet on February 1, **Dr. Frank Reibold** was honored as "Boss of the Year."

Dr. J. F. Bishop, of Davenport, chairman of the IMS Judicial Council, addressed the Contemporary Club in his home town on "The Art of Medicine," late in January. A subsequent report in the DAVENPORT TIMES-DEMOCRAT indicated that he touched upon several of the "final, lonely responsibilities" of the physician.

Drs. Stewart Olson and **Robert Knox,** Des Moines general practitioners, moved into a suite of offices on the second floor of a new building at Seventy-third Street and Hickman Road, across the street from the Sherwood Forest shopping center where they practiced previously.

On January 25 **Dr. Ivan Schultz** resigned as city health officer of Humboldt. **Dr. Asa Arent** was appointed to succeed him.

The 1969 officers of the Davis County Medical Society are **Dr. Mark Pabst,** president; **Dr. H. J. Gilfillan,** vice-president; **Dr. John R. Scheibe,** secretary-treasurer; **Dr. Richard Schoonover,** delegate; and **Dr. W. David Haufe,** alternate. **Dr. Henry M. Perry** was elected president of the medical staff of the Davis County Hospital; **Dr. James R. Mincks** was named vice-president; and **Dr. Edwin O. Gilfillan** was chosen as secretary-treasurer. All of them practice in Bloomfield.

It seems that **Dr. Arnold Reeve,** of the State Department of Health, must have set at least a local record when he administered measles vaccine to 1,269 youngsters in three Kossuth County towns on a single day, January 14. In Swea City he gave 163 shots; in Bancroft, 224; and in Algona 882. He used a jet injector.

More than 500 people attended an open house held on Sunday, January 23, in Webster City to honor **Drs. W. B. and Faye C. Lewis,** who subsequently (on February 1) retired from practice after about 40 years' service to the town.



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Contraindications: Hypersensitivity to antihistamines. Not recommended for use during pregnancy.
Precautions: Until patient's response has been determined, he should be cautioned against engaging in operations requiring alertness. Administer with care to patients with cardiac or peripheral vascular diseases or hypertension.
Side Effects: Hypersensitivity reactions including skin rashes, urticaria, hypotension and thrombocytopenia, have been reported on rare occasions. Drowsiness, lassitude, nausea, giddiness, dryness of the mouth, mydriasis, increased irritability or excitement may be encountered.
Dosage: 1 Extentab morning and evening.
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Owner Breaks Arm When Yacht Runs Aground

Schuyler, Oct. 31. Harry Waters of Covesville incurred a fractured arm [illegible] large rock tially capsized. The fire depart had to rescue Waters by small Damage to the yacht is estimat

For the patient who has been through an accident, the worry and anxiety following the mishap may actually heighten the perception of pain. This is why there's a classic ¼ grain *sedative* dose of phenobarbital in Phenaphen with Codeine—to take the nervous "edge" off, so the rest of the formula can control the pain more effectively.

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Phenaphen with Codeine Nos. 2, 3, or 4 contains: Phenobarbital (¼ gr.), 16.2 mg. (warning: may be habit forming); Aspirin (2½ gr.), 162.0 mg.; Phenacetin (3 gr.), 194.0 mg.; Hyoscyamine sulfate, 0.031 mg.; Codeine Phosphate, ¼ gr. (No. 2), ½ gr. (No. 3), or 1 gr. (No. 4) (warning: may be habit forming).

The compound analgesic that calms instead of caffeinates

Indications: Phenaphen with Codeine provides relief in severer grades of pain, on low codeine dosage, with minimal possibility of side effects. Its use frequently makes unnecessary the use of addicting narcotics. **Contraindications:** Hypersensitivity to any of the components. **Precautions:** As with all phenacetin-containing products excessive or prolonged use should be avoided. **Side effects:** Side effects are uncommon, although nausea, constipation and drowsiness may occur. **Dosage:** Phenaphen No. 2 and No. 3—1 or 2 capsules every 3 to 4 hours as needed; Phenaphen No. 4—1 capsule every 3 to 4 hours as needed. For further details see product literature.



Dr. Jesse J. Landhuis, a general practitioner, has joined the staff of the Kersten Clinic, in Fort Dodge. He is a 1965 graduate of the U. of I. College of Medicine, he interned at the San Bernadino County Hospital, in California, and then spent two years at a Vietnamese government medical clinic. He is unmarried.

Dr. Harold Henstorf, of Shenandoah, attended a three-day meeting of the American Diabetes Association, in Denver, during the third week of January.

On January 30 **Dr. Walter A. Anneberg** was presented the 1968 Carroll Community Service Award. During his 45 years of practice there he has delivered about 7,500 babies, and has accomplished a great many other highly worthwhile tasks. He came to Carroll from Des Moines, as a teen-ager, graduated from high school there, went away for his college and medical education, and returned seven years later to join his brother in the practice of medicine. Besides being a leader in church affairs, he is given considerable credit for the planning and construction of the American Legion post's swimming pool, and for making it a financial success. Dr. Anneberg is described as "a pretty fair swimmer, himself," for he was captain of the swimming team at the University of Iowa during his junior undergraduate year. As a Rotarian, he has been particularly interested in raising money for the organization's international scholarships.

Dr. E. W. Paulus retired from his general practice in Iowa City on January 31, after 34 years of work. The staff at Mercy Hospital and a great many of his patients, former patients and friends, gave a surprise party for him that day. Dr. and Mrs. Paulus said they intended to leave, shortly, on a 40-day tour of South America that they have been planning for a long time. Thereafter they will maintain their home in Iowa City but will travel extensively. The youngest of their three children, a daughter, is a senior this year at the U. of I.

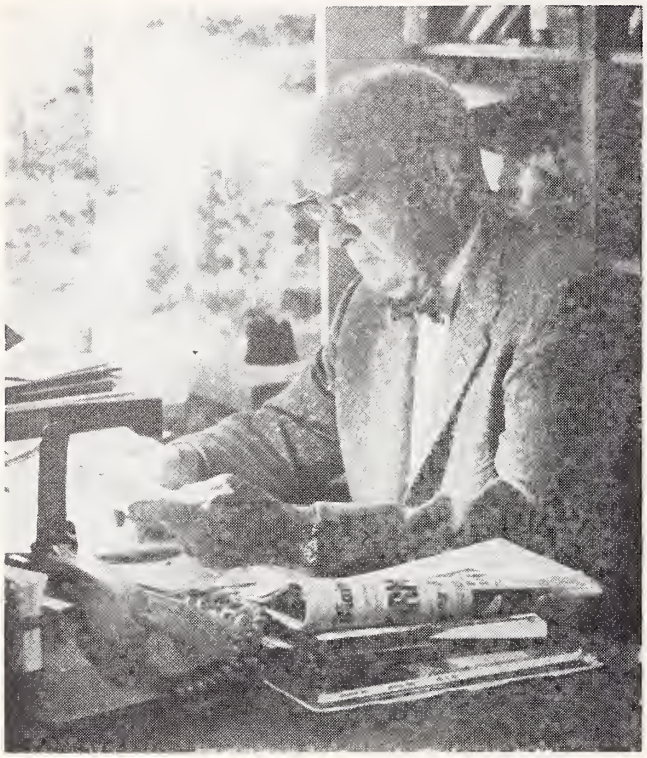
Dr. Albert L. Clemens, of Des Moines, consultant to the claims department of Midwest Mutual Insurance Company there, has been elected to the firm's board of directors.

At the February 4 meeting of the Wapello County Medical Society, held at the Red Lion Inn, in Ottumwa, **Dr. Leslie Bernstein,** an associate professor in the U. of I. Department of Otolaryngology and Maxillofacial Surgery, spoke on plastic and reconstructive surgery of the face.



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Dr. Fraser

Saturday, February 1, was a red-letter day for **Dr. John H. Fraser,** of Monticello, for it was the fiftieth anniversary of his entry into medical practice. Forty-six of those years, he has spent serving his community in eastern Iowa. Dr. Fraser was born and brought up in Scotland and worked in a cotton mill for $1.25 per week and in an insurance office at $1.50 per week before emigrating to the United States. During his first year in this country, he was a farm laborer in North Dakota. He finished Jamestown College and took a master's degree at Ames before entering the University of Illinois College of Medicine. He practiced briefly in Clear Lake and Mason City before settling in Monticello.

Dr. J. Guthrie McCarroll, a Fort Dodge obstetrician and gynecologist, spoke to the chapter of the American Association of University Women, there, about recent advances in medicine, during February.

Addressing the American Academy of Dermatology, in Chicago, late in January, **Dr. Richard M. Caplan,** an associate professor of dermatology at the U. of I. College of Medicine, warned that the people who handle animal-feed additives are likely to contract allergic rashes. Feed-plant workers and farmers are exposed to the chemicals in those materials through the skin and also to the inhalation of feed dust, he pointed out.

Dr. Hiram J. Leonard, of Estherville, addressed the Estherville Nurses Association on February 3 at the Holy Family Hospital there.

Dr. Clarence Denser, a Des Moines pathologist, spoke to the Mahaska Hospital Auxiliary late in January regarding a blood bank project for that area.

Dr. W. R. Meyer was elected president of the Clinton County Medical Society and **Dr. G. T. Schmunk** was elected vice-president at a meeting held on January 21. **Dr. J. S. Holl,** who was elected secretary-treasurer at the December meeting, will continue in charge of the records and funds of the organization.

Dr. Stephen Jewett took over the practice of **Dr. M. G. Parks,** at Centerville for a week in January while Dr. Parks attended a meeting in California. Dr. Jewett was on leave from military service.

Dr. Richard Sedlacek, of Cedar Rapids, was severely critical of the Iowa law permitting the sale of beer in grocery stores, in his remarks at a workshop on drugs and alcohol held in Washington High School, Cedar Rapids, January 18. Alcohol is alcohol, he maintained, regardless of the beverage in which it is contained. **Captain Arthur Zimmerman,** of the Cedar Rapids police, reported that 17 boys and four girls had been arrested in Cedar Rapids, between January and October for violations of the narcotics law, and that 26 boys and 13 girls had been arrested under his city's new anti-glue-sniffing ordinance between June and October, 1968. The program had been planned by the student council at Washington High School, and students from others of the area's schools and all interested adults had been invited.

Dr. Reuben B. Widmer, of Winfield, was the featured speaker at the annual Master Corn Growers' banquet there, on January 20. The advance publicity had promised: "His dual topics will be 'You and Your Health' and 'The Medical Facilities of Henry County,' and he may just tell a joke or two."

Dr. Edward J. Hertko, a Des Moines endocrinologist, addressed the January 28 meeting of the Iowa Diabetes Association on "What's New in Diabetes." The meeting was held at the Iowa

Commission for the Blind, Fourth and Keosauqua Way, Des Moines.

A symposium on inhalation therapy was held on January 24 at the Allen Memorial Hospital, in Waterloo, for physicians and hospital administrators from throughout the state. **Dr. Gerald F. Tuohy,** director of anesthesiology at McKennan Hospital, Sioux Falls, spoke on the management of respiratory failure and gas analysis; **Dr. George Heine** discussed oxygen toxicity; **Dr. Coleman Burns** talked on the psychological approach to patients; **Dr. Lee Simso's** topic was fat embolism; and **Dr. Norman Siderius** spoke on ventilatory management of chest trauma. Dr. Heine practices in Cedar Falls, and the others practice in Waterloo. Following the meeting, the formation of an Iowa chapter of the American Association for Inhalation Therapy was discussed.

At the January 23 meeting of the Woodbury County Medical Society, held at the Marina Inn, in Sioux City, **Dr. C. A. White,** an associate professor of obstetrics and gynecology at the U. of I. College of Medicine, spoke on "Office Gynecology."

Dr. John Martin, of Clarinda, was elected president of the Page County Medical Society, and **Dr. Kenneth Jensen,** also of Clarinda, was reelected secretary at the January meeting of the organization.

The Dallas County Board of Supervisors has appointed **Dr. Keith Chapler,** of Dexter, as county medical examiner, and **Dr. C. S. Fail,** of Adel, **Dr. Eugene Lister,** of Dallas Center, and **Dr. L. L. Long,** of Perry as his deputies. All of the appointments are for two-year terms.

Dr. John Foss, of Burlington, addressed the February 4 annual meeting of the Des Moines County Historical Society regarding Indian lore.

Dr. William Telfer, of Waterloo, was elected president of the Iowa Obstetrical and Gynecological Society at the organization's January meeting in Iowa City.

Dr. James H. Wise, of Cherokee, was hospitalized for a week in Sioux City during January.



Dr. Lee Forrest Hill, a Des Moines pediatrician, was presented the DES MOINES TRIBUNE'S Community Service Award on February 12. He had been nominated for the honor by Dr. Dennis H. Kelly, Sr. As chief of staff at Raymond Blank Memorial Hospital for Children, Dr. Hill trained 67 young men in the pediatrics specialty, of whom 12 are now practicing in Des Moines, Dr. Kelly wrote. Dr. Hill had been in La Jolla, California for several months recuperating from a cardiovascular attack, but returned home, with Mrs. Hill, for the presentation ceremony. In the latter 1930's Dr. Hill was editor of this JOURNAL, and Dr. Kelly is the present editor.

Dr. Gene Egli, of Fairfield, is the new finance chairman for the Jefferson County GOP Central Committee.

The chairman of the educational and fund-raising drive of the Cancer Society in Buena Vista County this year will be **Dr. P. W. Brecher,** of Storm Lake.

Dr. J. E. Dahlbo, of Sutherland, was taken by ambulance to the Hartley Community Hospital on January 7, after he fell on the ice in an alley near his office. The local newspaper published two days later suggested that his right arm might have been broken, but couldn't be definite about it.

At the annual meeting of the Polk County Medical Society, on January 15, life memberships were granted to the following Des Moines physicians: **Dr. Paul E. Gibson, Dr. Helen Johnston, Dr. Harold J. McCoy** and **Dr. John H. Tait.**

A two-bed acute coronary care unit was opened at Sartori Hospital, Cedar Falls, on January 13. **Dr. Robert Blue,** the chief of staff, told the board of trustees at its monthly meeting that he and his colleagues were enthusiastic about that addition to the hospital's facilities.

The 1969 president of the Scott County Medical Society is **Dr. Erling Larson, Jr.** The newly chosen officers are **Dr. Ralph P. Lagoni,** president-elect; **Dr. W. D. Edgerton,** vice-president; **Dr. Kenneth H. McKay,** secretary; and **Dr. D. A. Bovenmyer,** treasurer. Dr. Lagoni practices in Eldridge, and all of the others in Davenport.

Dr. Fred Dick, Jr., is the 1969 president of the Black Hawk County Medical Society. The newly chosen officers are **Dr. Lewis Zager,** president-elect; **Dr. Richard Miller,** vice-president; **Dr. G. M. Vandervelde,** secretary; and **Dr. Richard Wells,** treasurer. All of them practice in Waterloo.

Dr. Wallace H. Longworth closed his practice in Boone on January 1, after 38 years' service to the area. Born in 1899 on a farm near Polk City, he finished high school in Ames, did his undergraduate college work at Iowa State, took his M.D. degree at the U. of I. in 1927, and had a two-year internship at St. Luke's Hospital and a year as a railway surgeon in Chicago, before settling in Boone in 1930. It is expected that **Dr. John Murphy,** now an officer in the Navy, will take Dr. Longworth's place next June in partnership with **Drs. R. L. Wicks, Wayne Rouse** and **John Anderson.**

During the coming months the Clay County chapter of the American Cancer Society and the Clay County Medical Society are to cooperate in conducting a Pap Smear Demonstration Program. **Dr. Lyle F. Frink,** of Spencer, spokesman for the Medical Society, said that the project has the approval of the IMS Committee on Oncology and the IMS Executive Council. The Cancer Society chapter is to conduct an intensive educational campaign that will include the distribution of pamphlets, showings of the film "Time and Two Women," and talks by doctors and nurses at meetings of women's organizations during a six-week period beginning in April. Subsequently clinics will be organized, and all of the adult females in Clay County will be urged to go to one or another of them. Results will be reported to the women's respective physicians.

Dr. P. G. Ingham, of Mapleton, was honored by the Monona County Medical Society, in January, when he completed 50 years of medical practice.

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IMS Annual Meeting

Mezzanine Floor—Hotel Fort Des Moines

Monday, April 28—8:00 a.m.—5:00 p.m.

Tuesday, April 29—8:00 a.m.—5:00 p.m.



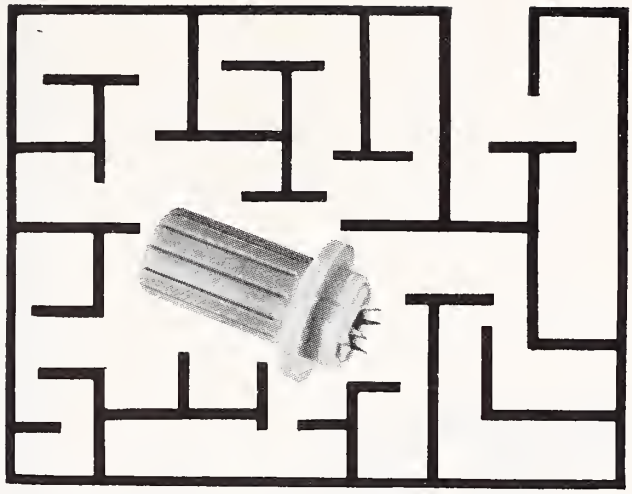
The Chamber of Commerce at Audubon honored a semi-retired physician, Dr. L. E. Jensen (right), as its Man of the Year, in mid-January. The citation mentioned that during Dr. Jensen's 46 years of practice there he sometimes had to "travel many miles and several hours on horseback to aid the sick and hurt," and he invariably provided medical care "with a personal touch." Some of his lesser accomplishments which were mentioned included his captaining an Audubon High School football team that beat Carroll High School 87-0; his captaining the University of Iowa's wrestling team; and his serving as a member of the Audubon School Board.

A medical bag belonging to **Dr. Robert Mugan**, of Sioux City, which had been reported stolen from his car on Friday, January 31, was found on Monday night, February 3, buried in the snow. Dr. Mugan reported that none of the instruments, drugs and other medications which the bag had contained were missing.

Dr. George S. Anderson, a private practitioner in Iowa City, represented the Iowa Society of Internal Medicine at a regional meeting of the American Society of Internal Medicine in Scottsdale, Arizona, on February 7-9.

At a meeting of the Waterloo Licensed Practical Nurses Association held in St. Francis Hospital there, on February 13, **Dr. Heinz S. Jacobi**, of Waterloo, discussed organ transplants.

Dr. Asa Arent closed his office at Humboldt for 10 days in mid-February. He and Mrs. Arent visited their daughter in Duluth, and then Dr. Arent attend the Refresher Course for General Practitioners in Iowa City.



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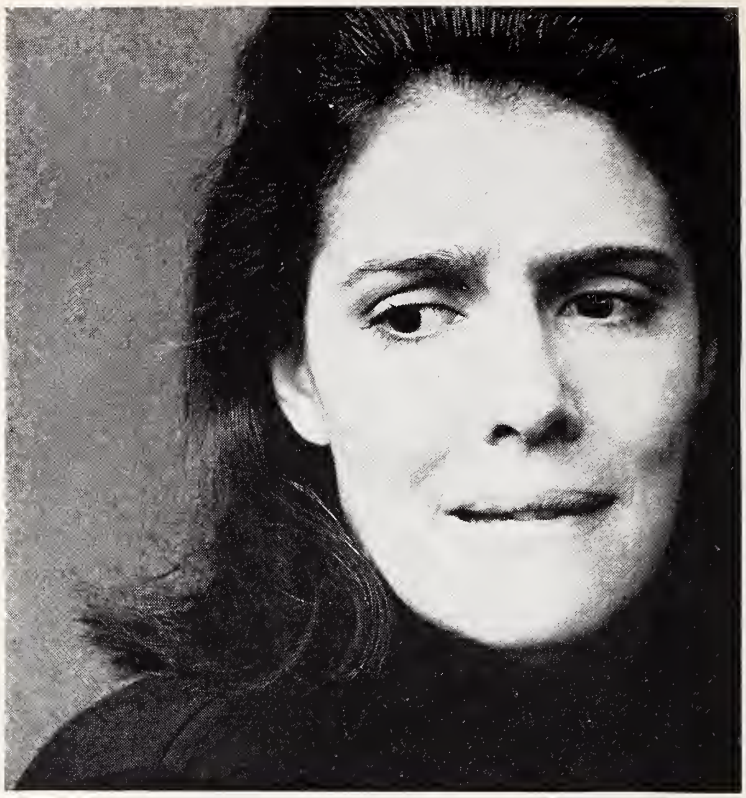
Precautions—Nonspecific reactions are rare, but may occur. Vesiculation, ulceration or necrosis may occur at test site in highly sensitive persons. The test should be used with caution in patients known to be allergic to acacia, or to thimerosal (or other mercurial compounds).

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The Fortunate One.

Her urinary tract infection reveals itself through pain and discomfort.

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Azo Gantanol® therapy usually provides analgesic action within one-half hour, while control of the infection begins within two hours. Azo, a specific urinary analgesic, soothes inflamed mucosa to give symptomatic relief. At the same time, the antibacterial component, Gantanol (sulfamethoxazole), achieves therapeutic levels in the blood and urine, with diffusion into interstitial fluids. Azo Gantanol—a good choice when urinary tract infection reveals itself through symptomatic distress.

Before prescribing, please consult complete product information, a summary of which appears on opposite page.

Azo Gantanol®

(Each tablet contains 0.5 Gm sulfamethoxazole and 100 mg phenazopyridine HCl.)

Azo for the pain
Gantanol®
(sulfamethoxazole)
for the pathogens

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Indications: Urinary tract infections with associated pain or discomfort when due to susceptible organisms; prophylactically in urologic surgery, catheterization and instrumentation.

Contraindicated in sulfonamide-sensitive patients, pregnant females at term, premature infants, newborn infants during the first three months of life, glomerular nephritis, severe hepatitis, uremia and pyelonephritis of pregnancy with gastrointestinal disturbances.

Warnings: Use only after critical appraisal in patients with liver damage, renal damage, urinary obstruction or blood dyscrasias. If toxic or hypersensitivity reactions or blood dyscrasias occur, discontinue therapy. In closely intermittent or prolonged therapy, blood counts and liver and kidney function tests should be performed.

Precautions: Observe usual sulfonamide therapy precautions including maintenance of an adequate fluid intake. Use with caution in patients with histories of allergies and/or asthma. Patients with impaired renal function should be followed closely since renal impairment may cause excessive drug accumulation. Occasional failures may occur due to resistant microorganisms. Not effective in virus and rickettsial infections.

Adverse Reactions: Headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, Stevens-Johnson syndrome, injection of the conjunctiva and sclera, petechiae, purpura, hematuria or crystalluria may occur, in which case the dosage should be decreased or the drug withdrawn.

Dosage: Adults—4 tablets initially, then 2 tablets morning and evening.

How Supplied: Tablets, bottles of 50.

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The nine Iowans who completed tours of service abroad the hospital ship *S.S. Hope* at Colombo, Ceylon, during the week of February 9 included three physicians: **Dr. Clark N. Cooper,** who practiced surgery until recently in Waterloo, **Dr. Harold W. Morgan,** a Mason City radiologist, and **Dr. George R. Zimmerman,** a professor of pathology at the U. of I. College of Medicine.

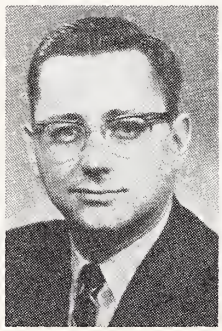
Three of the 23 scientific papers chosen for presentation at the recent national meeting of the Orthopedic Research Society, in New York City, were written by faculty members or physicians in the Department of Orthopedic Surgery at the U. of I. College of Medicine. **Dr. Reginald Cooper** presented a report on "Ligament and Tendon Insertions: an Electron Microscopic Study," of which the co-author was **Dr. Sinesio Misol,** a resident physician. Dr. Cooper was chosen secretary-treasurer elect of the Society at the meeting. **Dr. Richard C. Johnson,** an assistant professor, described "Measurement of Hip-Joint Motion During Walking; Evaluation of an Electrogoniometric Method." His collaborator was **Mr. Gary Smid,** a research assistant in engineering at the U. of I. **Dr. Donald B. Kettelkamp,** an associate professor, reported on "Radioisotope Evaluation of Damage in Frostbite: An Experimental Study," and **Dr. Dennis K. Collis,** a resident physician, read a paper on "Long-Term Follow-Up of Patients With Adolescent Idiopathic Scoliosis" co-authored by **Dr. Ignacio V. Ponseti,** a professor of orthopedics. **Dr. Adrian E. Flatt,** a professor, led the discussion of an audio-visual program dealing with "Silicone Rubber Implant Arthroplasty in the Hand," and was made a fellow of the Academy at the meeting. **Dr. Michael Bonfiglio,** a professor, and Dr. Cooper also had shares in giving examinations to physicians who wished to be certified by the American Board of Orthopedic Surgery. **Dr. Carroll B. Larson,** head of the Department, and Drs. Flatt, Bonfiglio and Ponseti took part in presenting instructional courses there. Faculty members at the U. of I. Department of Orthopedic Surgery serve on 14 of the national committees of the American Academy of Orthopedics.

Dr. Neal N. Llewellyn, a general surgeon in private practice in Iowa City, was presented the bronze star and combat "V" for meritorious service at ceremonies on February 4 at the Naval Reserve Training Facility there. Besides a year at the Naval Hospital in Long Beach, California, Dr. Llewellyn served for a year with the fleet Marine force in Vietnam.

Dr. Lewis E. January, a professor of internal medicine at the University of Iowa, has been made a member of the executive and advisory committees of a new national Inter-Society Commission for Heart Disease Resources, which will develop guidelines for evaluating medical facilities and services of the preventive, diagnostic, treatment and rehabilitation types. "Findings of the Commission will be embodied in a series of published

guidelines to be used by medical facilities in communities of various sizes and geographic locations," Dr. January says. The Commission includes representatives from 26 organizations interested in cardiovascular problems, and Dr. January, a past-president of the American Heart Association, is one of that group's two representatives.

Dr. Reginald R. Cooper, an associate professor in the U. of I. Department of Orthopedics, has been awarded a traveling fellowship by the American Orthopedic Association. One of the highest awards in his field, the fellowship will provide him an expense-paid six-week tour of the leading orthopedic centers in England, beginning in April. Four of them are awarded, and selection is based on the excellence of the candidates' contributions to treatment, research and education in orthopedics. Much of Dr. Cooper's research has been in the electron microscopy of bone. A graduate of the Medical College of Virginia, he completed his specialty training at the U. of I. in 1960 and joined the U. of I. faculty after two years as an orthopedic surgeon in the Navy.



Dr. Ian M. Smith, a professor of internal medicine at the U. of I., had a share in conducting the annual scientific session for the staff of the Weld County General Hospital, in Greeley, Colorado, on February 4 and 5. A couple of weeks earlier, he had spoken on "Current Uses of Antibiotics" at a meeting in Lakeland, Florida.

At the January meeting of the Fayette County Medical Society, the following officers were elected for the year 1969: **Henry Wolf, M.D.,** Elgin, president; **William Wolf, M.D.,** West Union, vice-president; and **Scott Linge, M.D.,** Fayette, secretary-treasurer.

Dr. Gene Egli was named Fairfield's "Man of the Year" on February 5, at the annual meeting of the town's Chamber of Commerce, held in the H & W Commons on the Parsons College campus. In making the presentation—a more than ordinarily utilitarian plaque, since it serves as the base for a desk pen set—**Mr. Lewis E. Bussey,** manager of the North American Rockwell Corporation plant at Fairfield, said: "The award is given to a person who is a leading spokesman for the community, who gives tirelessly of his time and energy and who exhibits the highest quality of civic leadership during the year." Dr. Egli's greatest community achievement, Mr. Bussey said, has been his work as president of the Fairfield Community Fund.

Dr. Gene M. Kuehn, who practices with the Park Clinic group in Mason City, will be installed as a fellow of the American College of Obstetricians and Gynecologists at the organization's annual meeting in Bal Harbour, Florida, April 28-May 1.

Dr. C. V. Edwards, Sr., a Council Bluffs obstetrician and gynecologist, was crowned the forty-eighth king of the mythical realm of Coblia, during the Council Bluffs Mardi Gras celebration, at the field house of Thomas Jefferson High School on February 10.

At the February 19 meeting of the Polk County Medical Society, held at the Savery Hotel, **Dr. George G. Caudill,** a pediatric allergist and currently president of the Des Moines Board of Education, spoke on "The Struggle for Survival of Our Public Schools."

The topic for the Medical Forum of the Air, on the Des Moines Public Schools television station KDPS-TV at 9:00 p.m., March 3, will be "Why Youth Explodes," and the panelists will be **Drs. M. E. Alberts, Sidney L. Sands** and **Dennis J. Walter.**

Dr. Donald Kast, of Des Moines, has been appointed to the Medical Economics Committee of the American Academy of General Practice.

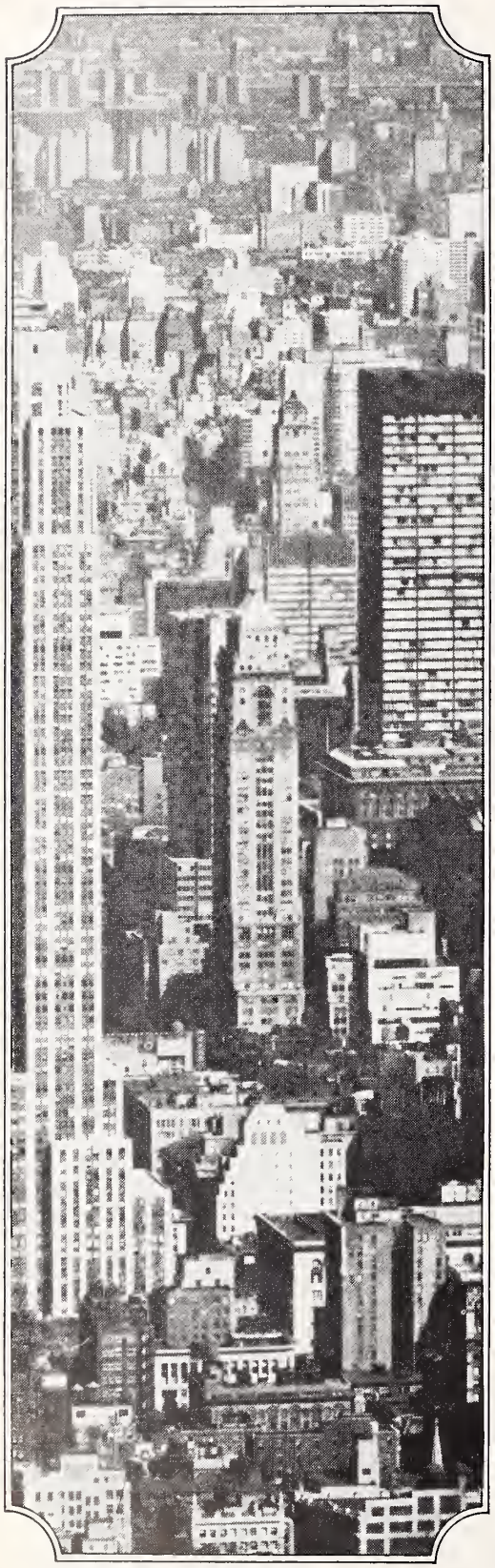
Deaths

Dr. Bernard E. Kenney, 44, a Council Bluffs psychiatrist, died on January 23 after a brief illness. A 1948 graduate of the Creighton University Medical School, he engaged in general practice at Woodbine for eight years before taking a residency at the University of Nebraska Psychiatric Institute. He did military service in both World War II and the Korean Conflict.

Dr. Charles Ray Phelps, 53, a pathologist who practiced in Ottumwa from 1949 until November, 1958, died on January 11 in a hospital at Dallas, Texas. At the time of his death he and a partner operated a pathology laboratory serving hospitals in Sherman and Denison, Texas, among others.

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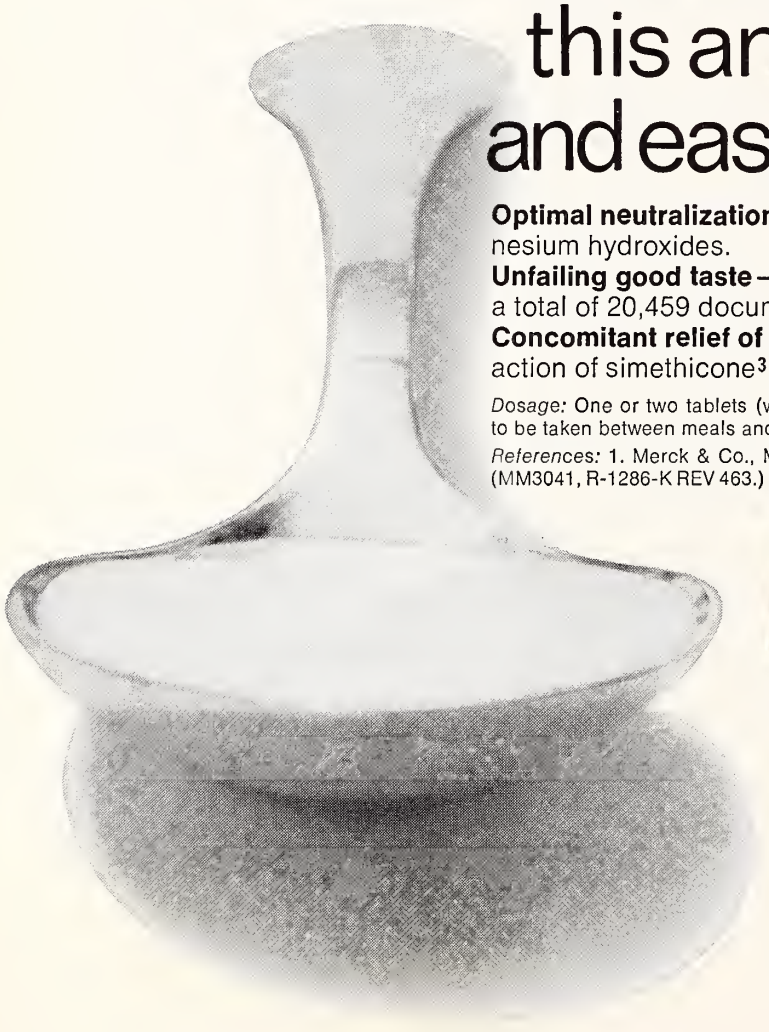
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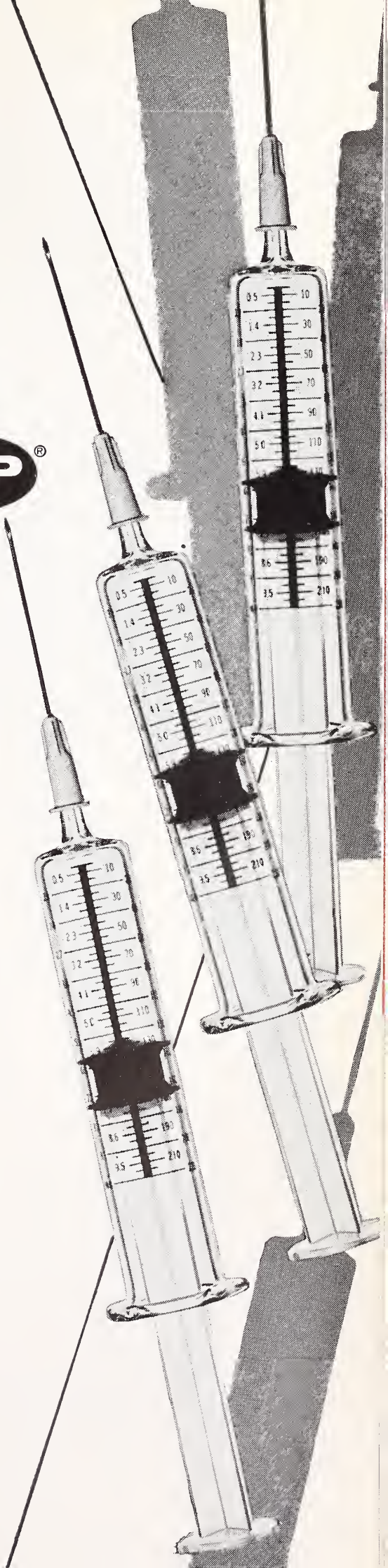
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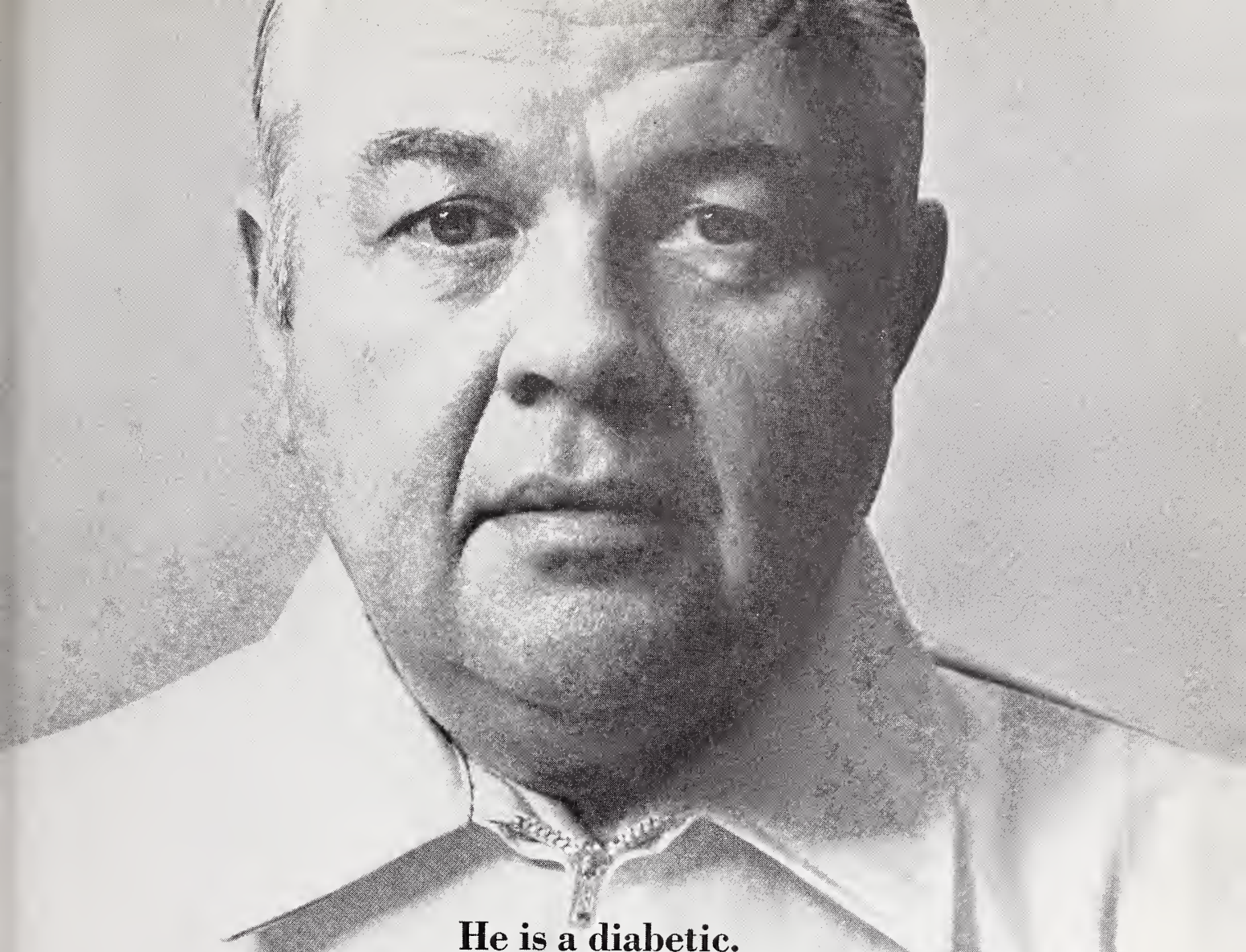
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He is middle-aged.
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To guard susceptible patients against intestinal monilial overgrowth during broad-spectrum therapy—the protection of nystatin is combined with demethylchlortetracycline in DECLOSTATIN.

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Effectiveness: Because its antibacterial component is DECLOMYCIN Demethylchlortetracycline, DECLOSTATIN should be equally or more effective therapeutically than other tetracyclines in infections caused by tetracycline-sensitive organisms. The antifungal component, Nystatin, protects against superinfection by antibiotic-resistant fungal overgrowth (particularly monilia) in the intestinal tract.

Contraindication: History of hypersensitivity to demethylchlortetracycline or nystatin.

Warning: In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated, and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort. Necessary subsequent courses of treatment with tetracyclines should be carefully observed.

Precautions: Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

Side Effects: Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes; a rare case of exfoliative dermatitis has been reported. Photosensitivity; onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose related. Transient increase in urinary output, sometimes accompanied by thirst (rare). Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth—dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Demethylchlortetracycline may form a stable calcium complex in any bone-forming tissue with no serious harmful effects reported thus far in humans.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products. Treatment of streptococcal infections should continue for 10 days, even though symptoms have subsided.

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chlorthalidone	50 mg.
reserpine U.S.P.	0.25 mg.

To lower blood pressure
and allay anxiety in hypertension.

For brief summary of prescribing information, see next page.

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chlorthalidone 50 mg.
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the once-a-day tablet for anxious hypertensives

Regroton is a combination of two basic antihypertensives designed to lower blood pressure and allay anxiety in hypertension. With Regroton he can keep his shirt on and you can keep his blood pressure down.

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Indications: Hypertension.
Contraindications: History of mental depression, hypersensitivity, and most cases of severe renal or hepatic diseases.
Warning: With the administration of enteric-coated potassium supplements, which should be used only when adequate dietary supplementation is not practical, the possibility of small-bowel lesions (obstruction, hemorrhage, and perforation) should be kept in mind. Surgery for these lesions has frequently been required and deaths have occurred. Discontinue coated potassium-containing formulations immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Discontinue one week before electroshock therapy, and if depression or peptic ulcer occurs.
Use in pregnancy: Because chlorthalidone may cross the placental barrier and appear in cord blood and thiazides may appear in breast milk, this drug should be used with care in pregnant patients and nursing mothers. When used in women of childbearing age, the potential benefits of the drug should be weighed against the possible hazards to the fetus. Use of chlorthalidone may result in fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult. Increased respiratory secretions, nasal congestion, cyanosis and anorexia may occur in infants born to reserpine-treated mothers.
Precautions: Antihypertensive therapy with this drug should always be initiated cautiously in postsympathectomy patients and in patients receiving ganglionic blocking agents, other potent antihypertensive drugs, or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. To avoid hypotension during surgery, discontinue therapy with this agent two weeks prior to elective surgical procedures. In emergency surgery, use, if needed, anticholinergic or adrenergic drugs or other supportive measures as indicated. Because of the possibility of progression of renal damage, periodic kidney function tests are indicated. Discontinue if the BUN rises or liver dysfunction is aggravated. Hepatic coma may be precipitated. Electrolyte imbalance, sodium and/or potassium depletion may occur. If potassium depletion should occur during therapy, the drug should be discontinued and potassium supplements given, provided the patient does not have marked oliguria.
Take particular care in cirrhosis or severe ischemic heart disease and in patients receiving corticosteroids, ACTH, or digitalis. Severe salt restriction is not recommended. Use cautiously in patients with ulcerative colitis or gallstones (biliary colic may be precipitated). Bronchial asthma may occur in susceptible patients.
Adverse Reactions: The drug is generally well tolerated. The most frequent side effects are nausea, gastric irritation, vomiting, diarrhea, constipation, muscle cramps, headache, dizziness and acute gout. Other potential side effects include angina pectoris, anxiety, depression, bradycardia and ectopic cardiac rhythms (especially when used with digitalis), drowsiness, dull sensorium, hyperglycemia and glycosuria, hyperuricemia, lassitude, restlessness, transient myopia, impotence or dysuria, orthostatic hypotension which may be potentiated when chlorthalidone is combined with alcohol, barbiturates or narcotics, leukopenia, aplastic anemia, skin rashes, thrombocytopenia, agranulocytosis, nasal stuffiness, increased gastric secretions, nightmare, purpura, urticaria, ecchymosis, weakness, uveitis, optic atrophy and glaucoma, and pruritus. Eruptions and/or flushing of the skin, a reversible paralysis agitans-like syndrome, blurred vision, conjunctival injection, increased susceptibility to colds, dyspnea, weight gain, decreased libido, dryness of the mouth, deafness, anorexia, and pancreatitis when epigastric pain or unexplained G.I. symptoms develop after prolonged administration. Jaundice, xanthopsia, paresthesia, photosensitization and necrotizing angiitis are possible.
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RE-6392



The Month in Washington

WASHINGTON, D. C.—The American Medical Association told Congress that the Internal Revenue Service acted arbitrarily and completely ignored the facts when it imposed a tax on revenue from drug advertising in the journals of tax-exempt medical associations.

Bernard D. Hirsh, AMA general counsel, testified before the House Ways and Means Committee, that the relation between the tax-exempt purposes of a medical association—national or state—and the drug advertising in its journal is self-evident. "Drug advertising alerts and stimulates the physician's interest in new drugs as they become available, and also serves to remind him of the broad spectrum of useful time-proven drugs," Hirsh said. "Obviously physicians should not and do not rely upon drug advertisements as their principal source of information, but drug advertisements often provide an important step in the process through which physicians become educated in the therapeutic value and risks of new drugs and a wider variety of useful drugs. . . . No other advertising provides as much complete and objective information."

Mr. Hirsh said the IRS regulations taxing medical associations on their advertising revenues represents an attempt to change the law without congressional action. "We urge that this mistake be rectified expeditiously and in the most practical way possible," Hirsh said.

Spokesmen for numerous other tax-exempt associations joined the AMA in opposing the tax on their advertising revenues. They included the American College of Physicians, the American College of Obstetricians and Gynecologists, the American Psychiatric Association, the American Dental Association, the Boy Scouts of America, the Girl Scouts of America, the American Chemical Society and the Society of National Association Publications.

Representatives of commercial publishing firms contended in testimony before the Committee that tax exemption gave the journals of the associations an unfair advantage in competing with them for advertising dollars. When the IRS announced the new tax regulations 15 months ago, it stated that its purpose was not to raise federal revenue but to remove a competitive advantage enjoyed by the tax-exempt associations.

In an announcement not directly connected with the House Committee's hearings, the IRS said it also is considering taxing the income that tax-exempt associations get from the rental of exhibit and display space at conventions.

* * *

A special advisory committee has urged an extensive national program to combat alcoholism. The National Advisory Committee on Alcoholism said in an interim report that attention should be given to alcoholism problems in all federally supported health and welfare programs. It also recommended elimination by hospitals of discriminatory policies denying admission to alcoholic patients; health-insurance coverage for alcoholics; increased support for research; and prevention and control of alcoholism as a vital part of national highway safety programs.

The advisory committee provides advice and guidance to the Secretary of Health, Education and Welfare concerning the Department's activities related to alcoholism. Robert Straus, Ph.D., a professor of medical sociology at the University of Kentucky Medical School, is chairman of the committee. It was created in October, 1966. Its members represent all sections of the country and include experts from the fields of medicine, psychiatry, sociology, vocational rehabilitation, law and public health.

"The magnitude of the problem is enormous," Dr. Straus said. "Our country has more than five million alcoholics. Their suffering alone is intolerable, but the need for increased action is made even more imperative by the fact that the affected families may include as many as 20 million Americans."

He also pointed out that alcoholism has a tremendous impact on business, causing absenteeism and a loss of productivity.

* * *

The National Institute of Mental Health awarded a first-year grant of $250,000 for a major alcoholism research program at the State University of New York, Downstate Medical Center, New York City. The five-year program will include experimental and clinical studies, training, and drug trials. In one study, 60 newly-admitted patients between the ages of 25 and 55, each with at least a five-year history of alcoholism, will be studied to determine the effects of experimentally-induced intoxication and withdrawal on the subjects' sleep patterns, behavior and biochemistry. The investigators will focus upon the mechanisms underlying the development of physical and psychological dependence upon alcohol.

Among the drugs to be tested are haloperidol, dexoxadrol, disulfiram (Antabuse), paraldehyde,

and chlordiazepoxide alone and in combination with a tranquilizer and an antidepressant.

* * *

The federal government is planning to launch a five-year, nationwide program of inoculation against rubella, or German measles, as soon as a vaccine is licensed and becomes available in sufficient quantities. It is expected that a vaccine will be available by next fall.

Before March 1 two drug manufacturers had announced the development of a vaccine, and two others were developing one. Merck & Co., Rahway, N. J., was the first to announce having completed testing such a vaccine. The Merck vaccine, which is of the HPV-77 strain, was reported 95 per cent effective in vaccinating 18,000 children and adults. Merck also has been testing a one-shot combination vaccine against German measles, common measles and mumps.

PEPI Inc., New York, N. Y., said that it had developed a modified live-virus vaccine, also of the HPV-77 strain, for the disease and that when it is licensed, it will be marketed by Philips Roxane Laboratories and Parke, Davis & Co. PEPI said initial production would be for the most part, a single-dose vaccine for use in pediatric practice, but that later production would include dosage forms suitable for government-sponsored mass-vaccination programs.

The other two companies developing a rubella vaccine are Smith, Kline & French Laboratories, Philadelphia, and Eli Lilly & Co., Indianapolis. Eli Lilly has been developing a HPV-77 strain. Smith, Kline & French is working on a Cendehill strain, and it has proved 95 per cent effective in inoculations of more than 25,000 persons, according to the manufacturer. Another vaccine, using a rubella strain RZ 27-3, has been developed at the University of Pennsylvania.

* * *

Rep. Ancher Nelsen (R., Minn.) has introduced legislation calling for the same federal tax treatment for professional corporations of physicians organized under state law as for business corporations. "We are overdue in acting to guarantee this same right of organization to professional persons that we have always given other forms and types of businesses," Mr. Nelsen told the House.

He noted that the federal government's so-called Kintner regulations issued in 1960 primarily keyed taxation of professional corporations to state law. "As a result," he said, "many states, Minnesota included, passed laws enabling incorporation under these regulations. Assuming the air was cleared, many corporations were formed. However, in 1965, the Internal Revenue Service issued new regulations reversing its position, which if upheld, make it almost impossible to create a professional corporation, regardless and in spite of state laws permitting the same.

* * *

"No business can operate without some basis of continuity of the ground rules. If any set of rules should be stable, the rules governing the basic tax classification of businesses for tax purposes should be stable and not subject to administrative whim. Businesses, almost without exception—except for the professions with which this bill deals—are now allowed to decide whether to adopt the partnership, association or corporate form under applicable state laws. There is no logical reason for denying this choice to persons who are rendering personal services in the medical or legal fields. Fairness and equity in application of the federal income tax laws demands that all businesses be treated alike in this sense.

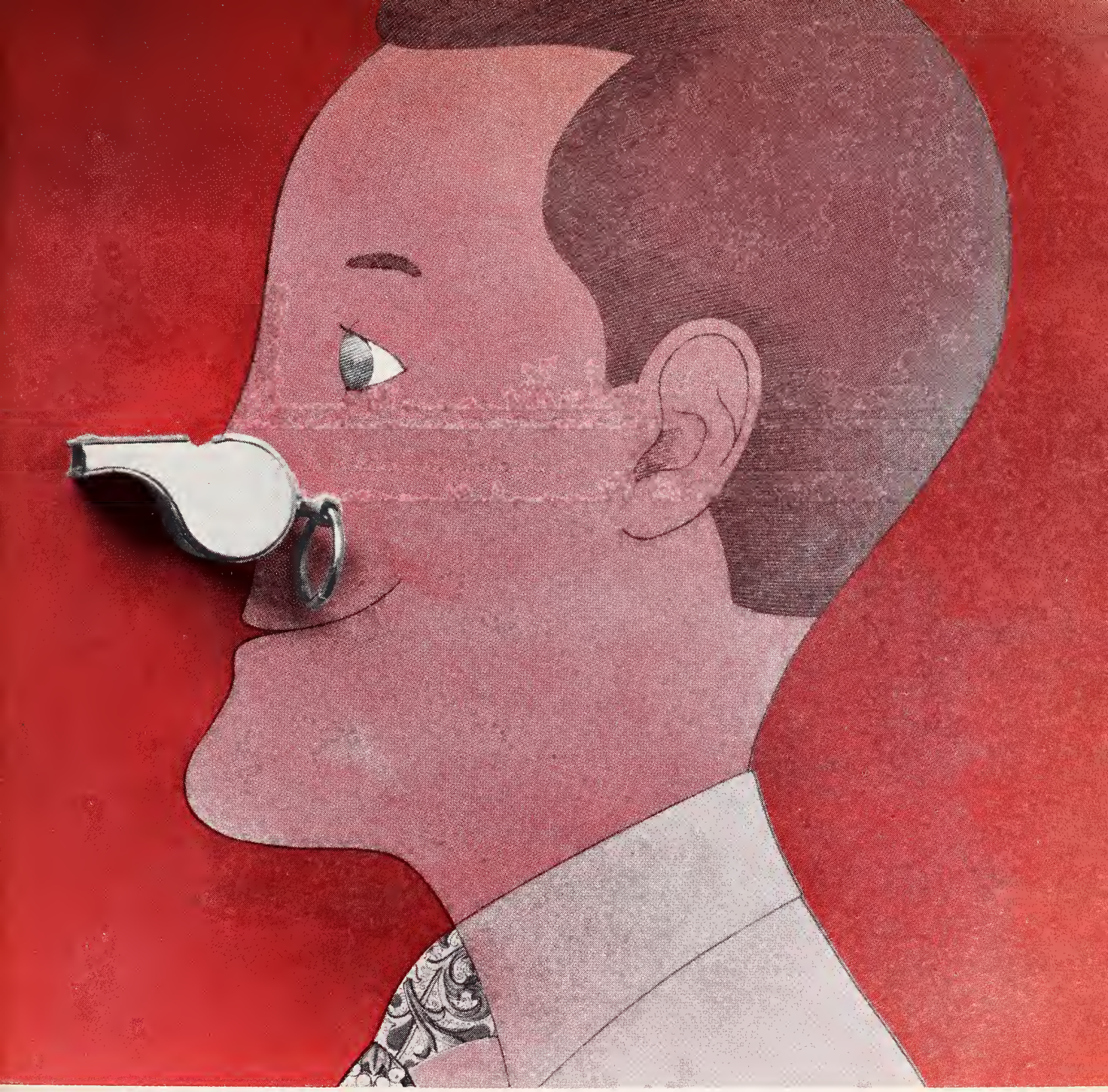
"The only apparent reason for the 1965 amendments to the regulations was to prevent a possible reduction in federal revenues. I am certainly convinced that this is not an adequate reason for ignoring years of legal precedent and congressional intent in this field. Furthermore, the providing of health, pension and profit-sharing plans through tax incentives under the corporate structure is a worthy objective and a legitimate use of the tax laws. Indeed, I am advised that any possible total tax revenue loss will be minimal when it is realized that most profits will be ultimately taxable, even though such taxation might be immediately deferred.

"The position taken by the Internal Revenue Service in 1965 is untenable. It violates fairness, equity, reasonableness, years of legal precedent, and the intent of Congress as to the tax treatment of business organizations operating legitimately under state law. I would urge all my colleagues to support hearings and passage of this needed legislation at the earliest possible date."

* * *

Senator Clinton Anderson (D., N.M.) introduced a bill to require that the Medicare and Medicaid payments which are made to hospitals and nursing homes be no greater than local Blue Cross allowances. The bill complements a measure introduced by Sen. George D. Aiken (R., Vt.) earlier this year which would tie physicians' charges to Blue Shield schedules. Senator Aiken co-sponsored Senator Anderson's bill. Co-sponsoring both bills are Senator Mike Mansfield (D., Mont.) and Senator Winston L. Prouty (R., Vt.). Senator Anderson co-sponsored Senator Aiken's bill.

Senator Anderson also said he supports the idea of Senator John J. Williams (R., Del.) that Congress should give Medicare and Medicaid programs a close look—perhaps a full-dress investigation.



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Precautions: Until patient's response has been determined, he should be cautioned against engaging in operations requiring alertness. Administer with care to patients with cardiac or peripheral vascular diseases or hypertension.
Side Effects: Hypersensitivity reactions including skin rashes, urticaria, hypotension and thrombocytopenia, have been reported on rare occasions. Drowsiness, lassitude, nausea, giddiness, dryness of the mouth, mydriasis, increased irritability or excitement may be encountered.
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Before prescribing, please consult complete product information, a summary of which follows.

INDICATIONS: Indicated as adjunctive therapy to control emotional and somatic factors in gastrointestinal disorders.

CONTRAINDICATIONS: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide.

WARNINGS: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

PRECAUTIONS: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and toler-

or here.



ated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

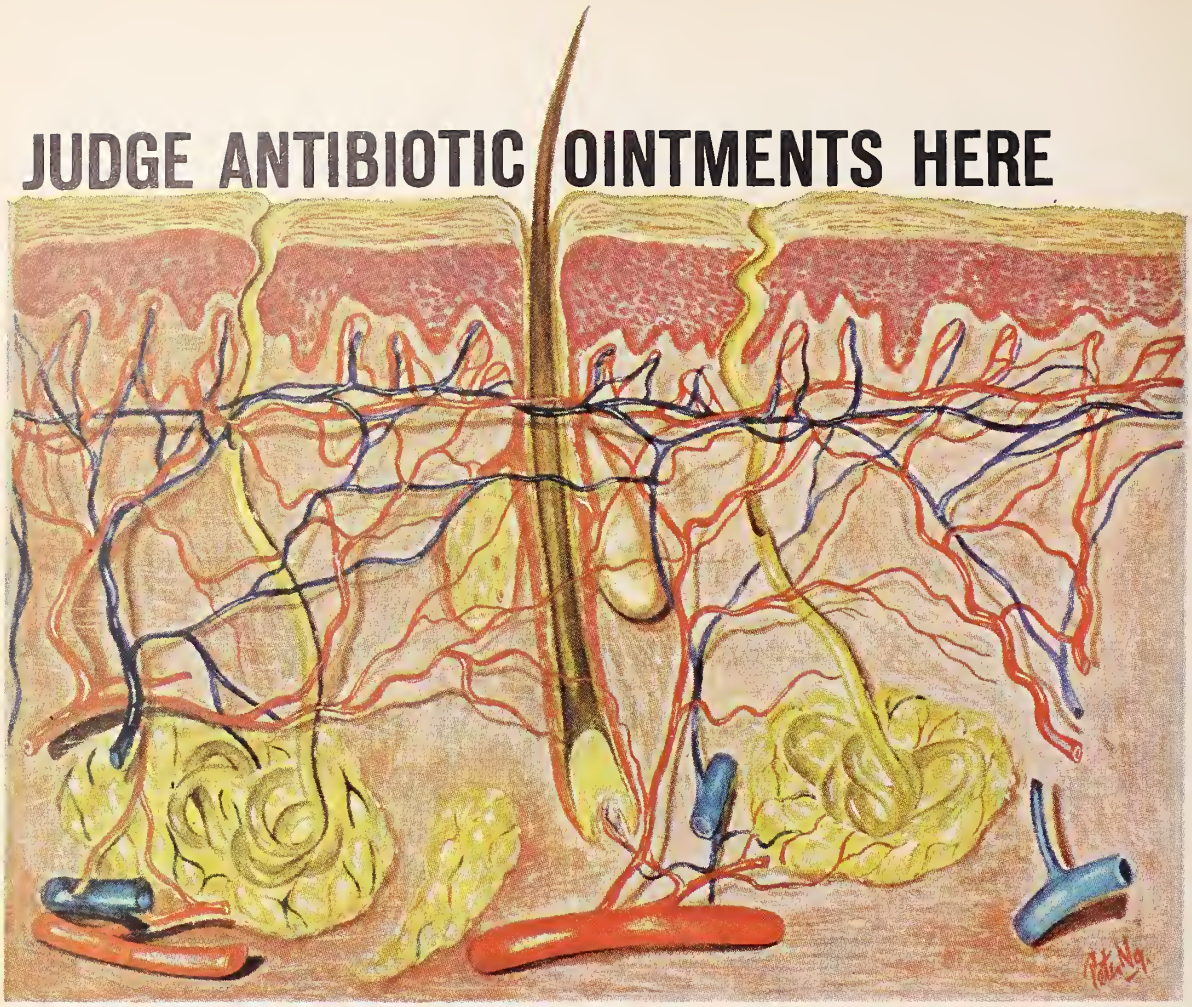
ADVERSE REACTIONS: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver-function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diet.

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COMING MEETINGS

IN STATE

April 4 — **Symposium on Practical Applications and New Developments in Blood Coagulation,** U. of I. College of Medicine, Iowa City.

April 4-5 — **Symposium on Management of Facial Deformities, U.** of I. College of Medicine, Iowa City.

April 10-11 — **Thirteenth Annual Pediatric Conference.** Blank Memorial Hospital, Des Moines.

April 17 — **Stroke Symposium sponsored by North Iowa Stroke Rehabilitation Program,** Witke's Restaurant and the Surf Ballroom, Clear Lake.

April 27-30 — **Annual Meeting, Iowa Medical Society,** Des Moines.

May 5-9 — **Postgraduate Course on Maxillofacial Trauma,** U. of I. College of Medicine, Iowa City.

May 8-10 — **Mid-Central States Orthopaedic Society,** Hotel Fort Des Moines, Des Moines.

May 14-15 — **Postgraduate Course on Surgery,** U. of I College of Medicine, Iowa City.

May 23-24 — **Postgraduate Course on Vertigo,** U. of I. College of Medicine, Iowa City.

CONTINENTAL U. S.

April 7-9 — **Postgraduate Course on Diagnosis, Evaluation and Treatment of Lung Cancer sponsored by American College of Chest Physicians,** Houston, Texas.

April 9-11 — **Annual Meeting, Medical and Chirurgical Faculty of the State of Maryland,** The Alcazar, Baltimore

April 9-11 — **Postgraduate Course in Management and Care of Respiratory Insufficiency,** University of Colorado School of Medicine, Denver.

April 9-11 — **Postgraduate Course in Management of Acute and Chronic Respiratory Failure,** University of Nebraska Medical Center, Omaha.

April 14-15 — **Postgraduate Course on Cardiac Auscultation,** New York University Post-Graduate Medical School, New York.

April 14-17 — **Postgraduate Course in Obstetrics and Gynecology, University of Colorado School of Medicine,** Colorado Springs.

April 14-18 — **Postgraduate Course on High Risk Infant Care,** University of Colorado School of Medicine, Denver.

April 16-19 — **Thirteenth Annual Postgraduate Course in Trauma sponsored by Chicago Committee on Trauma, American College of Surgeons,** John B. Murphy Memorial Auditorium, Chicago.

April 20-25 — **50th Annual Session, American College of Physicians,** Conrad Hilton Hotel, Chicago.

April 20-26 — **International Symposium on Obstetrics and Gynecology sponsored by International College of Surgeons,** Chicago.

April 21-23 — **American Academy of Pediatrics spring session,** Sheraton-Boston Hotel, Boston.

April 21-24 — **1969 American Industrial Health Conference,** Shamrock-Hilton, Houston.

April 24-25 — **Postgraduate Course on Theory and Practice of Contact Lenses,** New York University Post-Graduate Medical School, New York.

April 24-25 — **Second Postgraduate Course sponsored by American Fertility Society,** Carillon Hotel, Miami Beach.

April 24-26 — **Postgraduate Course in Clinical Dermatology,** University of Colorado School of Medicine, Denver.

April 24-26 — **Postgraduate Course on Pulmonary Care in Children sponsored by American College of Chest Physicians,** Chicago.

April 28-29 — **Psychiatry and the General Practitioner,** University of Nebraska Medical Center, Omaha.

April 28-May 1 — **17th Annual Clinical Meeting of American College of Obstetricians and Gynecologists,** Americana Hotel, Bal Harbour, Florida.

April 28-May 2 — **Postgraduate Course on Ophthalmoscopy sponsored by New York University Postgraduate Medical School,** New York.

April 28-May 2 — **Postgraduate Course on Ophthalmoscopy,** New York University Post-Graduate Medical School, New York.

May 1-3 — **Symposium on Anxiety and Depression: Modern Interpretation sponsored by Mound Park Hospital Foundation and University of Florida College of Medicine,** Tides Hotel and Bath Club, Redington Beach, Florida.

May 1-4 — **Annual Session, Texas Medical Association,** Hilton and St. Anthony Hotels, San Antonio

May 5-8 — **Postgraduate Course on External Diseases of Eye sponsored by New York University Postgraduate Medical School,** New York.

May 5-9 — **Postgraduate Course in Medical Technology sponsored by University of Colorado School of Medicine,** Estes Park.

May 7-9 — **Symposium on Current Concepts in Clinical Oncology sponsored by New York University Postgraduate Medical School,** New York University Medical Center, New York.

May 5-6 — **Genetics in Medical Practice,** University of Nebraska Medical Center, Omaha.

May 8-10 — **National Conference on Breast Cancer,** Shoreham Hotel, Washington, D. C.

May 8-10 — **Postgraduate Course in Pediatrics sponsored by Department of Pediatrics, University of Cincinnati,** Children's Hospital, Cincinnati.

May 8-10 — **National Conference on Breast Cancer sponsored by American Cancer Society and Cancer Control Program, United States Public Health Service,** Shoreham Hotel, Washington, D. C.

May 12-13 — **Postgraduate Course on Psychiatry and the General Practitioner,** University of Nebraska Medical Center, Omaha.

May 12-16 — **Internal Medicine—The Good That's Old: The New That's Vital, sponsored by American College of Physicians,** Einstein Medical Center, Philadelphia.

May 12-16 — **Postgraduate Course in Medical Technology sponsored by University of Colorado School of Medicine,** Estes Park, Colorado.

May 13-15 — **Pesticides and Public Health. USPHS and FDA,** National Communicable Disease Center, Atlanta, Georgia.

May 15-16 — **Postgraduate Course on Otolaryngology,** University of Nebraska Medical Center, Omaha.

May 19-22 — **Adolescent Medicine sponsored by American College of Physicians,** University of Washington School of Medicine, Seattle.

May 19-23 — **Intensive Care Units sponsored by American College of Physicians,** New York University, New York.

May 22-23 — **Postgraduate Course on Diagnosis and Care of the Battered Child sponsored by University of Colorado School of Medicine,** Denver.

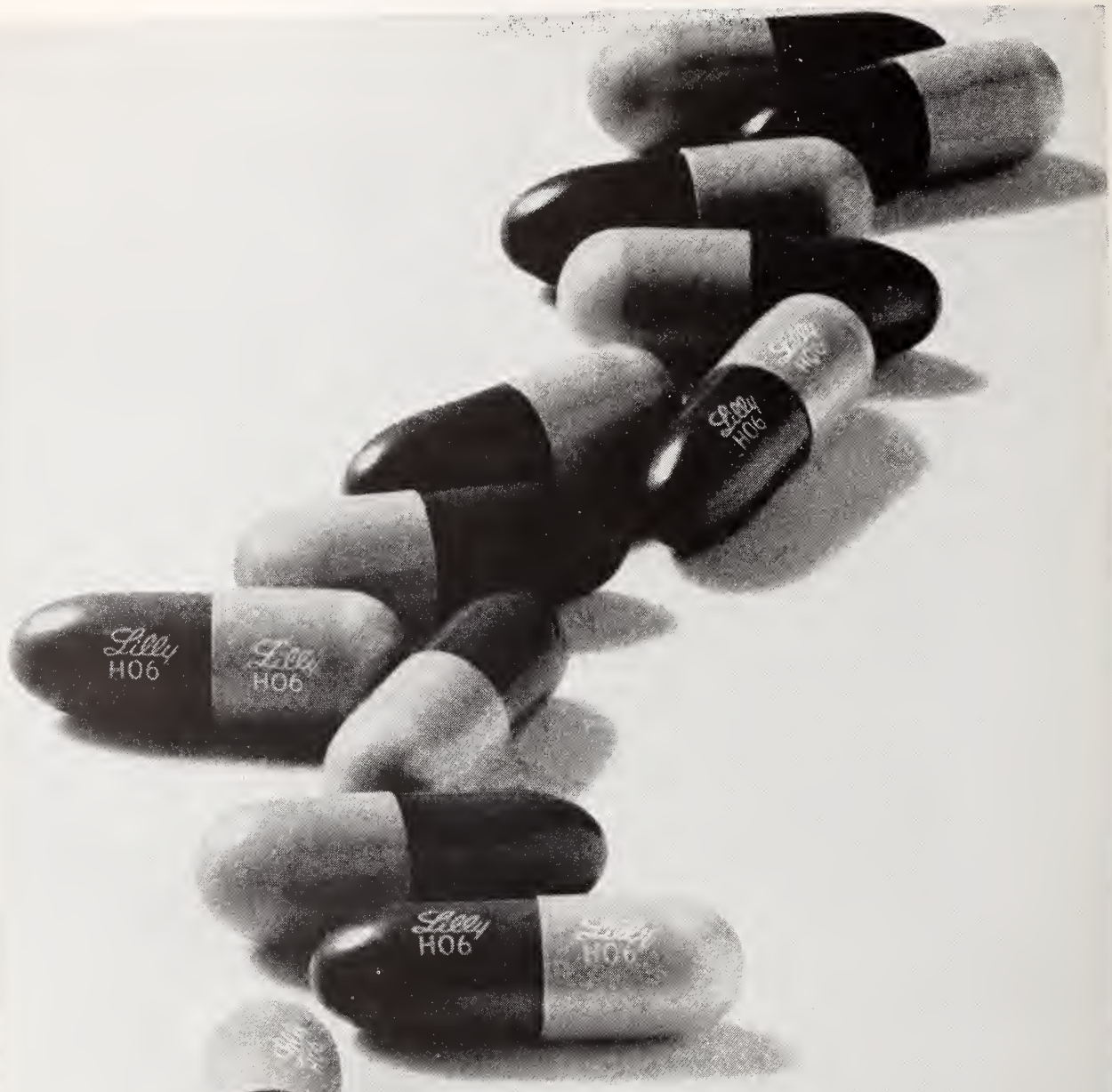
May 22-24 — **Surgery and 14th Annual Trauma Day,** University of Nebraska Medical Center, Omaha.

May 29-June 1 — **Third Triennial Congress on Medical and Related Aspects of Motor Vehicle Accidents,** Americana Hotel, New York.

ABROAD

April 8-10 — **Institute of Cancer Research,** Cambridge, England.

April 13-16 — **European Society for Experimental Surgery. 4th Congress,** Davos, Switzerland.



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Greetings From the Dean

Dear Colleagues:

It is my pleasure to express to you again the greetings of the College of Medicine and the University. We have had a busy year in our own programs and in working with the various committees and task forces of the Medical Society. The latter activities seem to me to be most significant.

We all know that the biggest problem facing us is the maintenance of the health-care delivery system. I am not in agreement with some who say we do not have a system. We do, although it wasn't planned but grew up spontaneously in response to community needs. Some sectors are now in danger of breaking down. In Iowa this is evident in rural areas, and in other states it is the inner city which is in trouble.



There are many facets to the problem. Too often it has been oversimplified, and people refer to it simply as "the doctor shortage," without realizing the impact of such things as increased specialization, higher costs, augmented demands for health care and growth of scientific sophistication in medicine. Most troublesome of all, in my opinion, was the failure on the part of both medical education and organized medicine to define clearly the role of the family physician and his educational needs.

Now things have changed. The Task Force on Medical Manpower of the Medical Society has faced the problem squarely and has made recommendations in the socio-economic sector as well as in education. These deserve careful study by all. The Academy of General Practice, the specialty boards and the American Medical Association have come to agreement on the training of the family physician and the long-needed recognition of the specialty. At the College, we immediately began to review our position relative to a general-practice residency. That review is not yet complete, and we will want to have conversations with many of you in the near future. It may be that several community hospitals should join in such a program.

I am encouraged by all these developments, because the solution to our perplexing problem may lie in them. We have had a good year of joint effort which has drawn the medical school and the Medical Society more closely together than ever, and I think the future of both is brighter for it.

Yours very truly,



Robert C. Hardin, M.D.
Dean
Vice President, Medical Affairs

The Educational Opportunity Program in Medicine at the University of Iowa

The faculty and student body of the College of Medicine are deeply concerned that so few negroes, American Indians, Puerto Ricans, Mexican-Americans, and the poor from all segments of our population are applying for, or receiving, an education in any of the health science and service fields. We are particularly concerned about the paucity of such students in medicine, and want to do something about it.

The College of Medicine has charged its Admissions Committee to address itself to this area of recruitment, and a sub-committee has been working on the problem in conjunction with a similarly-motivated group in the office of the University's Dean of Admissions and Records. Two postures have been assumed. The first concerns undertaking some activities right now which might produce immediate results—that is, if possible, to enroll students from the educationally-deprived portions of the population in the class that will begin in September, 1969. This effort has taken us far afield, since we have been searching out such students both here in Iowa and elsewhere across the country.

The second approach is concerned with a long-range view of the problem. It attempts to seek out and identify junior-high and high-school students and then work with them and their families and teachers, hopefully to create a whole new group of potential college- and professional-school students from children who might not otherwise consider a college education as a reasonable and meaningful goal for them.

A brochure we are now completing for this group begins: "Are you one who has already decided you couldn't go to college? Have you decided that you couldn't be admitted to medical school? That 'people like me can't become doctors'? That 'I couldn't afford to go to medical school anyway'? If so—READ THIS."

The proposed brochure then asks and answers the following questions:

1. Who can study medicine?
2. How do you seek a life-career in medicine?
3. How much does it cost? . . . Can you afford it?
4. How do students get into medical school?
5. The Educational Opportunity Program in Medicine—do you qualify?
6. Would you like to study medicine? Here's what to do right away.

The general theme of this approach is that an educationally-deprived person with the proper *talents*, *interest* and *enthusiasm* can find a place in medicine. We are making the assumption, in this program, that there are students in Iowa and in other parts of the nation who have been deprived of the opportunities of a good college and professional education who would qualify for our Educational Opportunity Program. In this program we shall be endeavoring to find loan funds, scholarship funds, summer employment opportunities in and about the College of Medicine and University Hospitals, and shall be planning special educational experiences including tutorial assistance for qualified students.

In this effort, as Dr. Richard Caplan, chairman of the Admissions Committee, and Dr. William Conner, chairman of the Educational Opportunity Sub-committee, recently told the faculty, *we need your help!* We need help in recruiting; help in the seek-and-find of talented, interested youngsters; help in putting together the needed scholarship, loan and employment funds. This is a project to which the entire medical profession of Iowa can and should address itself actively.

W. W. MORRIS, Ph.D.
Associate Dean
Medical Student Affairs

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Scientific Articles

Cutaneous Hazards Posed by Agricultural Chemicals

RICHARD M. CAPLAN, M.D.
Iowa City

No work that could be called "industrial" is free of job-related illnesses. Modern innovations in machinery and chemicals have made farming unquestionably "industrial," and therefore responsible for instances of farmers' ill health.

Physicians generally, but dermatologists especially, have long recognized certain cutaneous hazards to which the farm worker is especially subject. Physical hazards have included trauma, prickly heat, and the sunshine-induced problems of aging changes, actinic keratoses, cancer of the skin and the lip, and either spontaneous or drug-induced photo-sensitivity reactions. Biologic hazards have included allergic sensitivities to plants and their products, bites of both large and very tiny animals, and a variety of specific infections—bacterial, fungal or viral. All of these have jeodardized the agriculturalist.

In this article I shall present a series of six case reports that illustrate some of the chemical hazards, most of them new to the farmer's environment, and some of the cutaneous effects that they produce. In each instance the possible implications for workmen's compensation are apparent.

Dr. Caplan is an associate professor of dermatology at the U. of I. College of Medicine.

CASE REPORTS

Case 1. E.P., 54 years old, earns his living as a commercial sprayer of insecticides and weed-killers. On August 14 he used water and a brush to clean his spraying equipment of its accumulation of chemicals and debris, without taking any precaution to protect his hands. By the next day, both the dorsal and the palmar surfaces of his hands and wrists were greatly swollen, were brightly erythematous, and were causing him much burning and itching. After the dermatitis healed, patch tests using dilute concentrations of the many chemicals that were caked on his equipment were applied to his back. There were no positive reactions.

Comment: About 80 per cent of industrial contact dermatitis is generally caused by strong irritant chemicals, rather than by a unique allergic response on the part of the victim.[1] It is likely that such a proportion holds true for instances of contact dermatitis acquired on the farm. The rather sudden onset of the dermatitis in this case (within hours following exposure) and the negative reactions to patch tests of dilute concentrations speak for the simple ir-

ritant effect. In allergic reactions there usually is a delay of one or two days after exposure before the itching and eruption begin, and dilute patch tests are ordinarily positive. Furthermore, essentially all people who have worked with the extremely efficient modern weed and insect killers recognize their potent, direct irritating effect upon ocular and nasal mucous membranes. Although the skin can endure much more insult than those non-cornified membranes can, it nonetheless has its "breaking point," and a sufficient insult by strong agents can provoke it to any degree of inflammatory reaction. The need for special spraying equipment and the known irritancy of these materials are both reasons why many farmers hire the work done by commercial sprayers such as this patient. Gasoline, solvents, cleansers, disinfectants and fertilizers are still a part of the farm environment and naturally remain important causes of irritant-chemical dermatitis.

Case 2. B.F., 38 years old, is a farmer who three years earlier had spilled a liquid insect killer over his left hand. Although he wiped it off and soon washed his hands, his left hand developed a severe, acute dermatitis by that evening. It healed in about two weeks, but from that date onward the palmar surface of his left hand remained always dry, slightly red and scaly. His hand had not previously shown such changes, although the soles of both his feet had been like that for many years. His right hand remained normal. Scrapings from his left palm and from his soles three years after the initial insult were positive for dermatophyte fungal filaments, and the cultures grew Trichophyton rubrum. Small maintenance doses of griseofulvin achieved good symptomatic control over the symptoms.

Comment: This instance of primary-irritant contact dermatitis, like that of the patient described in Case 1, was complicated by the development of a chronic fungal infection from organisms constantly present in his environment—ones, in fact, which he carried with him, always, on his feet. Baer and Rosenthal[2] have shown that the development of a dermatophyte fungal infection probably requires at least moderate damage to the normal integrity of the cutaneous surface, for otherwise the organism cannot establish itself as an infecting or symbiotic agent. One often encounters a dermatophyte infection of a single toenail in a patient who relates that the nail disturbance first appeared soon after a heavy object had fallen on that toe. Case 2 illustrates a modern chemical insult's paving the way for an ancient biologic enemy.

Case 3. K.F. is a 35-year-old, mildly obese farmer with a history of childhood asthma and of nasal stuffiness when he is near hogs. On May 6 he spent the entire day working with two weedkillers. One of them he had used many times before, with no problem. The other of them was new to him. Within a few minutes after opening the sack of new herbicide and starting to work with it, he began to notice a burning sensation over his hands, forearms and face, especially at the lip. He did not notice a powder or dust in the air. His lips, ears and the tip of his nose continued to burn, and his upper nasal passages were irritated so that he sneezed a great deal—so much, in fact, that his chest hurt and he had a taste of blood in his throat. He was wearing cotton work gloves, but his hands burned anyway. Although he was uncomfortable, he kept on working throughout the day and evening, distributing a total of some 600 lbs. of the new agent over his fields. The skin of the affected regions became definitely red, but it was not blistered though the burning was intense. During the next two days he itched much more, and burned much less. The itching, which was generalized rather than confined to the areas of greatest exposure, had almost stopped by the fourth day, and the skin then appeared almost normal.

Comment: This patient suffered a primary-irritant dermatitis, but the contact appears to have been primarily airborne. Ordinarily such a dermatitis would be located mainly on the exposed portions of the body. However, the warm summer day, his light, sweaty clothing, and his long hours of exposure provided a reasonable opportunity for the contact to become generalized. Also, this man was an atopic person. Generally such people tolerate neither physical nor chemical trauma to the skin as well as do non-atopic persons. Further, atopic persons have a "built-in" tendency to feel itchy from stimuli that would not provoke normal individuals.

Case 4. J.L., a 41-year-old farmer, awoke one day with scattered areas of erythema and

swelling on the dorsal surfaces of his hands and on his eyelids. The zones were irregular in shape, they were surmounted by fine vesiculation, and they itched greatly. Two days earlier he had handled solutions and syringes of penicillin bought at a local pharmacy to treat bovine mastitis. He had previously administered penicillin to cows with no untoward results. A patch test on the patient, with the same penicillin solution, provoked an active dermatitis within 48 hours.

Comment: This man's allergic contact dermatitis following exposure to penicillin illustrates a type of hazard encountered by farmers as they use modern drugs to treat their sick animals. It further reminds us that sensitization to a drug or other chemical may develop at any time, and not just following the initial exposure.

Case 5. W.A. is a 53-year-old man who is employed in a small-town feed store. For one year he had suffered frequent episodes of acute and subacute dermatitis of the dorsal surfaces of his hands, his forearms, and his neck and face. He had rarely been free of dermatitis since the onset, but at varying intervals he had had startlingly acute exacerbations. Once it had cleared almost entirely, during a two-week trip that he took to the West Coast, and it also responded readily during a few days that he spent in the hospital. A large number of contactants were applied to his skin as patch tests, and he reacted strongly to 1 per cent nitrofurazone (Furacin®) at 48 hrs. At the mention of that agent he remarked, "Oh, that medicine is in one of the chicken feeds that I sell." He customarily poured feed from a storage bin into sacks, using a hand scoop, and always raised a cloud of dust in the process. Once the offending agent had been identified, he was able to avoid it satisfactorily.

Comment: This case is an example of allergic contact dermatitis provoked by a widely-used medicinal agent known to elicit marked sensitization in some of those who come into contact with it. The patch test conclusively verified his sensitivity to it, but it was applied only by chance, rather than deliberately, for at the time I was unaware of how ubiquitous are medications in animal feeds.

Case 6. C.F. is a 35-year-old feed-mill worker. Nine years before he came to me he had suffered an acute attack of giant hives a few days after a penicillin injection. After beginning work at the feed mill, he had developed a scattering of itchy hives during the day and evening whenever penicillin was being added to a batch of animal feed and he worked near the large feed mixers. Antihistamine tablets gave him relief, or he avoided the problem almost entirely by carefully staying away from the mixing area on days when penicillin was being added to the commercial livestock feeds. Fortunately, the feed plant was large enough and his employers were sufficiently enlightened so that he could retreat without giving up his job.

Comment: This case is an example of chronic urticaria caused by inhalation of a drug (penicillin) to which the patient is sensitive. Because of its presence in commercial animal feed, the agent was airborne in his environment.

Almost all commercial animal feeds today contain chemical or drug additives, or at least vitamin and mineral supplements. Most of them also have one or several medications for the prevention or treatment of animal diseases. Unquestionably, these additives have been a boon to animal growth and health, and to the husbandman's pocketbook. This fact, plus the vigorous advertising of the pharmaceutical industry, has effectively pressured the feed industry into the drug business.

Table 1 lists the medicinal agents added to animal feed in 1967.[3] Physicians will recognize many of them as ones that are in use in human medicines. Most of them serve to combat a wide variety of animal infections. An interesting further development is the use of hormones to control the sexual cycles in cows, permitting them all to enter estrus together. Thus they can all be inseminated at the same time, and give birth at about the same time. Not only is this a great convenience to the farmer, but it also causes the cows to stop "riding" each other—a natural behavior that apparently decreases weight-gain and the optimum productivity said to be associated with a state of contentedness.

The U. S. Food and Drug Administration currently must approve each commercial formulation that contains drugs, and it naturally concerns itself with the question of human ingestion of drugs in milk, eggs or meat. Although the FDA can exert regulatory pressure on feed manufacturers, it has little opportunity

TABLE I

DRUGS APPROVED FOR SUPPLEMENTATION OF ANIMAL FEEDS (1967)

2 acetyl-amino-5-nitrothiazole	Nicotine
Acetyl (p-nitrophenyl) sulfanilamide	Nihydrazone
Aklomide (2-chloro-4-nitrobenzamide) plus sulfranitnan (acetyl (p-nitro phenyl) sulfanilamide)	Nithiazide
	3-nitro-4-hydroxyphenyl arsonic acid
Amino nitrothiazole	Nitrofurazone
Amprolium	Nitrophenide
Amprolium and ethopabate	4-nitrophenyl-arsonic acid
Arsanilic acid	Novobiocin
Arsenosobenzene	Nystatin
Bacitracin	Oleandomycin
Bithionol and methiotriazamine	Oxytetracycline
Cadmium anthranilate	Penicillin
Cadmium oxide	Pepsin
Chloramphenicol	Phenothiazine
Chlortetracycline	Phthalylsulfacetamide
Di-m-butyl tin dilaurate	Piperazine dihydrochloride and monohydrochloride
2, 4-diamino-5 (p-chlorophenyl) 6-ethylpyrimidine)	Piperazine Hexahydrate
Dichlorophen (2,2' dihydroxy-5,5' dichlordiphenylmethane)	Piperazine phosphate monohydrated
Dienestrol diacetate	Piperazine sulfate
Diethylcarbamazine	Polyoxyethylene
Diethylstilbestrol	Polyoxypropylene
Dimethylpolysiloxane	Promazine hydrochloride
Dimetridazole	Propylene glycol
3, 5-dinitrobenzamide	Pyrimethamine
Dinitrophenylsulfonylethylenediamine	Reserpine
Dried rumen bacteria	Ronnel
Dynafac	Sodium arsanilate
Enzymes (all except pepsin)	Sodium fluoride
Erythromycin thiocyanate	Sodium propionate
Ethylenediamine dihydriodide	Streptomycin
Furazolidone	Sulfaquinoxaline
Glycarbylamide	Sulfathiazole
Griseofulvin	Thiabendazole
Hygromycin B (in chicken and swine feeds)	Tylosin
Iodinated casein	P-ureidobenzenarsonic acid
Medroxyprogesterone Acetate	Vitamin D (for prevention of milk fever)
Menadione sodium bisulfite	Zoalene
Neomycin	
Nicarbazin	

to monitor the actual dilution, quantities and timing of animal feedings—all of which are under the individual farmer's control.

Penicillin finds its way into much commercial milk, and some drug residues can also be found in eggs and meat. Even more worrisome than the chance that a reaction may be provoked in a sensitized individual is the concern that such tiny exposures may induce sensitivity in a small but important fraction of the entire population, since essentially everyone now has such exposures. Furthermore, chronic exposures may possibly have biologic effects other than immunologic sensitization, and certainly may affect more than the skin.

A further consideration is the role of agricultural chemicals on the therapeutic or toxic effectiveness of medicines that the farmer may have taken. For example, DuBois and co-workers[4] have shown that DDT counteracts the effects of barbiturates, and since the organophosphate insect-killers inhibit cholinesterase activity, they interfere also with the nonspecific aliesterases that assist in detoxification of drugs and other chemicals.

Speculating on conceivable hazards may be needlessly frightening, and certainly one might as readily postulate ultimately desirable effects from such chemical additives. Thus, rather than say that our food supplies are "contaminated," it might be as accurate to say that they are "enhanced." As yet we don't have

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atropine sulfate	0.0194 mg.	0.0194 mg.	0.0582 mg.
hyoscine hydrobromide	0.0065 mg.	0.0065 mg.	0.0195 mg.
phenobarbital	(¼ gr.) 16.2 mg.	(½ gr.) 32.4 mg.	(¾ gr.) 48.6 mg.
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Brief Summary. Blurring of vision, dry mouth, difficult urination, and flushing or dryness of the skin may occur on higher dosage levels, rarely on usual dosage. Administer with caution to patients with incipient glaucoma or urinary bladder neck obstruction. Contraindicated in acute glaucoma, advanced renal or hepatic disease or a hypersensitivity to any of the ingredients.

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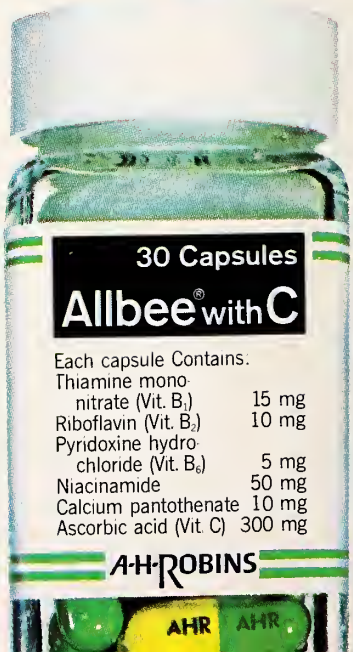
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enough information to entitle us to use such qualitative words.

SUMMARY

Case reports on six agricultural workers have illustrated several of the cutaneous disorders attributable to the use of modern insect sprays, weedkillers, animal medications and feed additives. Special concern has been given to many drugs that usually are present in commercial animal feeds. Physicians in agricultural areas need to be aware of the chemical complexity of modern farming, and to appreciate the implications that agricultural chemicals can have for human health and disease.

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Which Oral Contraceptive Should I Use?

WILLIAM R. ANDERSON, M.D.
Iowa City

MY INITIAL RESPONSE to this question is "So what?" Use those pills that get the job done best for you in your practice. A contraceptive medication must combine effectiveness, safety and acceptability—along with economy, both in cost and in time required for medical supervision. The fact that between eight and nine million women now use this form of family planning attests to the acceptability of the technique. Field trials initially in the Caribbean during the early 1950's and now in our country have demonstrated the superior effectiveness of the oral contraceptives when compared with mechanical techniques. Safety? —Aye, therein lies the problem. The medical and the lay press, by case report and by inuendo, have raised the question of significant or even life-threatening side effects of the oral contraceptives. So rather than the question, "Which oral contraceptive should I use?" the first question to be answered is "Should I use the oral contraceptives at all?"

COMPLICATIONS

Two factors must be considered when one evaluates the safety of "the pill": minor side effects, and major ones (threats to effectiveness or life). The minor side effects of breakthrough bleeding, edema, weight gain, mastalgia, mucorrhea, nausea, acne, depressive syndrome, libido change and chloasma seem related in large part to the constituents of the pill and their relative proportions. These minor symptoms can generally be controlled through proper patient selection and observation. These symptoms seem self-limited, and in the majority of cases they disappear following the first or second cycle of medication. On occasion these troublesome side effects are obviated by a change in pill type. None of these symptoms present a threat to the effectiveness or the life of the patient, and therefore do not constitute a contraindication to their use.

The areas of major concern relate to the potentially serious side effects: (1) thromboembolic phenomena; (2) neuro-ophthalmologic effects; (3) hypertension; and (4) anovulation and/or persistent amenorrhea following discontinuation of the pill.

THROMBOEMBOLIC PHENOMENA

The most adverse publicity concerning side effects of the pill has been that related to thromboembolism. Isolated case reports of venous thrombosis and pulmonary embolism in women taking oral contraceptives alerted the medical community to a potential problem. The coagulation-research laboratories have

Dr Anderson is an associate professor of obstetrics and gynecology at the U. of I. College of Medicine, and he made this presentation at the 1969 Refresher Course for General Practitioners in Iowa City.

found inconsistent increases in various clotting factors (V, VII, VIII and X), particularly in women on the high-dosage combination pill.[1, 2] The range and consistency of these increases have not been apparent in studies of the low-dose pill-takers. Two distinguished panels consisting of clinicians, pharmacologists and statisticians assembled by the FDA have presented non-condemning reports on the relationship between the pill and thromboembolism. On both occasions, however, they recommended that a warning about thrombotic disorders be issued, and they urged continued study of the possibility.

The British and the American literatures have not been in total agreement concerning the interpretation of several retrospective statistical studies on thromboembolism and the pill. Three controlled retrospective studies have been reported in British journals. The first was a morbidity study by the Royal College of General Practitioners.[3] Outpatients with thrombotic or thromboembolic problems were compared with two control patients randomly selected from the files of the study patients' practitioner. The second one, reported by Inman and Vessey, was a retrospective study of deaths related to thromboembolism.[4] Deaths of 334 women in the reproductive age group (95 from pulmonary embolism, 209 from coronary thrombosis, and 30 from cerebrovascular accident) were compared with the deaths of 998 control subjects chosen at a later date from the files of practitioners who were being interviewed concerning the study patients who had died. The last of the three British studies was that reported by Vessey and Doll.[5] It was a retrospective analysis of hospitalized patients with thromboembolic disease. Control patients in that study were chosen from hospitalized patients without thrombotic disorders.

All three of these studies indicated a three- to nine-times higher incidence of venous-thrombotic and pulmonary-embolic problems in the group on the pill than in the control group. The fact that the control groups demonstrated comparable figures of pill usage and the consistently increased risk of pulmonary embolism in the pill study group make these studies highly significant. On the other hand, in my opinion, the retrospective nature of these studies, the techniques utilized in obtaining the control group of patients, the stress placed on positive correlations, and the neglect of the negative correlations detract from the overall significance of these studies. The fact that pill-takers with conditions predisposing to thromboembolic disease had a lower incidence of the disease than did the control group of women not on the pill was blatently ignored in one of the studies.[4] No comparable studies are available as yet in the United States.

In a recent issue of the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, Drill and Calhoun undertook to rebut the British studies.[6] In combining statistical information on the incidence of thrombophlebitis in the general population of women, during pregnancy, and in a large, long-term contraceptive-pill study group, the authors found a lower incidence of thrombophlebitis in the pill study group—lower than in the untreated general population and just as low as was observed in women during the antepartum period. They refute the British statistics with figures from an *ad hoc* committee of the FDA. No statistically signficant differences were found between the study group and the control group in the rate of occurrence of pulmonary embolism. It was further noted that vital statistics from England and Wales fail to support the thesis that there has been an increase in the death rate among women from pulmonary embolism since the inception of birth-control pills.

Throughout all of this phase of literature it is quite evident that the very low incidence of these problems both in control and in study groups makes it obvious that much larger samples must be studied if meaningful statistics are to be gathered.

Despite the deficiencies of these statistical papers, it seems prudent for the clinician to withhold oral contraceptives from patients with previous histories of thrombotic episodes, and to discontinue them when thrombotic episodes occur in a patient who has been taking them. Factors predisposing to thrombotic episodes, such as varicose veins, collagen vascular disease and metabolic vascular disease, must be individually evaluated and the benefits must be carefully weighed against the potential harm.

NEURO-OPHTHALMOLOGIC COMPLICATIONS

The British studies which have been mentioned failed to show any statistical difference in cerebrovascular accidents between the study and the control patients. Case reports of neurovascular accidents producing either transient or permanent disability have been documented in young women taking the pill,[7, 8] but no controlled studies have shown an unequivocal relationship between those problems and oral contraception. The same statement can be made concerning the relationship between ophthalmologic complications and oral contraception.[9, 10] Throughout this case-report literature, an annoying theme persists. The patients with neuro-ophthalmologic complications seem to have a common predisposing history of vascular headaches, migraine with or without neurologic symptoms, and previous transient episodes of fainting or stroke-like syndromes.

The enhancement of migraine symptomatology in women with family histories of migraine or previous episodes of migraine is accepted by most authorities.[11, 12] Transient neurologic symptoms in a pill-taker are a sufficient indication to discontinue the pill. Patients with hypertensive vascular disease, migraine and previous neurologic syndromes are at risk for these complications, and therefore should not be placed electively on the pill.

HYPERTENSION

Laragh recently reported on eight patients who developed or had enhancements of hypertension while on oral contraceptives.[13] In six of the eight patients, marked improvement or complete correction of the hypertension occurred when the medication was discontinued. Subsequently, two patients had recurrent hypertension when a second trial of medication was attempted. Laboratory findings of *inconsistent* changes in the renin-aldosterone-angiotensive complex were associated in these clinical cases. To date, the evidence suggesting a direct relationship between hypertension and the pill is at best circumstantial. In view of these findings, however, it would seem that patients with existing hypertension, with any family history of hypertension, or with *repetitive* pregnancy hypertension or toxemia should not be considered optimal candidates for oral contraception.

POST-PILL ANOVULATION AND/OR AMENORRHEA

Several recent reports of prolonged amenorrhea and/or anovulation following oral contraception have added another dimension to the concern about serious side effects of the pill.[14, 15] The mechanism accounting for these problems is either central (a continuing disturbance of hypophyseal-pituitary gonadotrophin release), or peripheral with direct ovarian or endometrial effects. The only two types of patients who thus far have been found at increased risk are (1) those women who had anovulatory syndromes prior to starting the pill, and (2) those women who have greatly diminished to absent uterine bleeding while on the pill. In several instances clomiphene has produced satisfactory results for these unhappy infertile women. Dodek and Kotz report limited success with low-dose prednisone therapy.[14] At present the rationale for this treatment is not totally understood.

Now to summarize these data and to answer our original question: Yes, the oral contraceptives can be used safely when patients have been selected properly. The patients that I would *not* choose to place on oral contraceptives are those in whom there is:

1. A previous history of thromboembolic disease
2. The presence of hypertensive vascular disease, collagen vascular or metabolic vascular disease
3. A previous history of migraine or stroke-like syndrome
4. A hypertensive syndrome
 —repetitive pregnancy-hypertension or toxemia
 —strong family history of hypertension
5. An anovulatory syndrome
6. Hormone-dependent tumors (not previously mentioned).

With these patients excluded, and with careful observation of patients, these drugs can be used with confidence.

STEROID TYPES AND DOSAGES

Now for the question: "Which one of the myriad drugs should I use for the individual patient?" The pills differ in (1) steroid types, (2) steroid doses, and (3) a totally combined or a sequential administration of the steroid.

Only two estrogens are used in the pill—

mestranol and ethynyl estradiol. These estrogens have comparable anti-ovulatory effects, and there is little basis for recommending one rather than the other. The level of estrogen in comparison to the amount of progestin is important to the maintenance of the endometrium, and thus to the prevention of breakthrough bleeding.

The progestins which have been on trial include various unsaturated, methylated, halogenated, hydroxylated, demethylated and esterified derivatives of progesterone and testosterone. The proliferation of these synthetic steroids has created problems in clinical classification. The traditional categories—estrogenic, progestogenic and androgenic—are now inadequate. The minor variations that I have mentioned often produce not only quantitative differences in biologic activity but qualitative differences as well. These molecular rearrangements have produced a significant dissociation of biologic effects which now make a consistent characterization impossible. The major problems in this area concern the estrogenic properties of the progestin in the norethynodrel (Enovid) series which accentuate the estrogen side effects of gastrointestinal disturbances, mastalgia, mucorrhea and edema, and the androgenic activity in the progestin of norethindrone which gives rise to increased acne and, though rarely, to hirsutism in selected women.[16] These two problems have been virtually eliminated by the new low-dose schedules, and are important only in a highly sensitive individual who may need a switch in pill type to avoid these particular side effects.

COMBINED OR SEQUENTIAL?

The decision regarding combination versus sequential medication can, for the most part, be based on personal preference. Total conception control is possible with combination therapy because of the multiplicity of actions that render pregnancy virtually impossible. The sequential plan does not offer this total control, and there have been pregnancies despite it, particularly as a result of the patient's forgetting to take a pill, or because of a delayed interval between cycles. The sequential plan is preferable in the patient who has noted an absence of withdrawal bleeding while on the combined medication.

SUMMARY

"Which pill?"

With the new low-dose patterns available in oral contraceptives, I urge you to use the medication which has the lowest dose form and produces the fewest side effects. Proper patient selection prior to placement on oral contraceptives is *critical!* When maximum efficiency of conception control is required, clearly the combination drug should be the choice.

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The JOURNAL plans occasionally to print pictures taken at medical meetings, we call your attention to pages 338 and 339 in this issue. Please send black-and-white prints that you have snapped at your meeting, with the names of the doctors pictured and a brief résumé of the program.

Fracture of the Femoral Neck: Early Recognition and Treatment of Complications

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Iowa City

SINCE IOWA, WITH 12 PER CENT, leads the nation in the percentage of people over 65 years of age, fracture of the femoral neck presents a frequent and serious problem here. Aged persons, particularly women, incur this fracture as a result of osteoporosis secondary to an inactivity that often is aggravated by medical disease. Complications related to preexisting medical disease lead to a high immediate mortality rate of 10 to 15 per cent in the pre- and post-operative periods. An additional 10 to 15 per cent mortality occurs within the first year. Thus just under a third of the patients die within the first year after fracture.

Dr. Bonfiglio is a professor of orthopedic surgery at the U. of I. College of Medicine. He made this presentation at a postgraduate course in orthopedics at Iowa City in mid-November, 1968.

Factors relating to the medical condition of the patient—to the preoperative and postoperative surgical care, and rehabilitation (or to the lack of it) undoubtedly contribute to this high mortality. This paper makes no effort to analyze those factors, but instead proposes to stress the early recognition of complications related to the fracture itself, in an effort to improve the end result in the individual patient.

All too frequently, failure to recognize the factors responsible for a poor prognosis lead to the "procrastination syndrome," which, in turn, may insure poor repair of the fracture. There must be proper reduction, interposition of neck fragments or invagination of the visceral capsule, proper internal fixation, early recognition of poor settling at the fracture leading to nonunion, and early roentgenographic recognition of femoral-head density differences indicating aseptic necrosis (usually within six months).

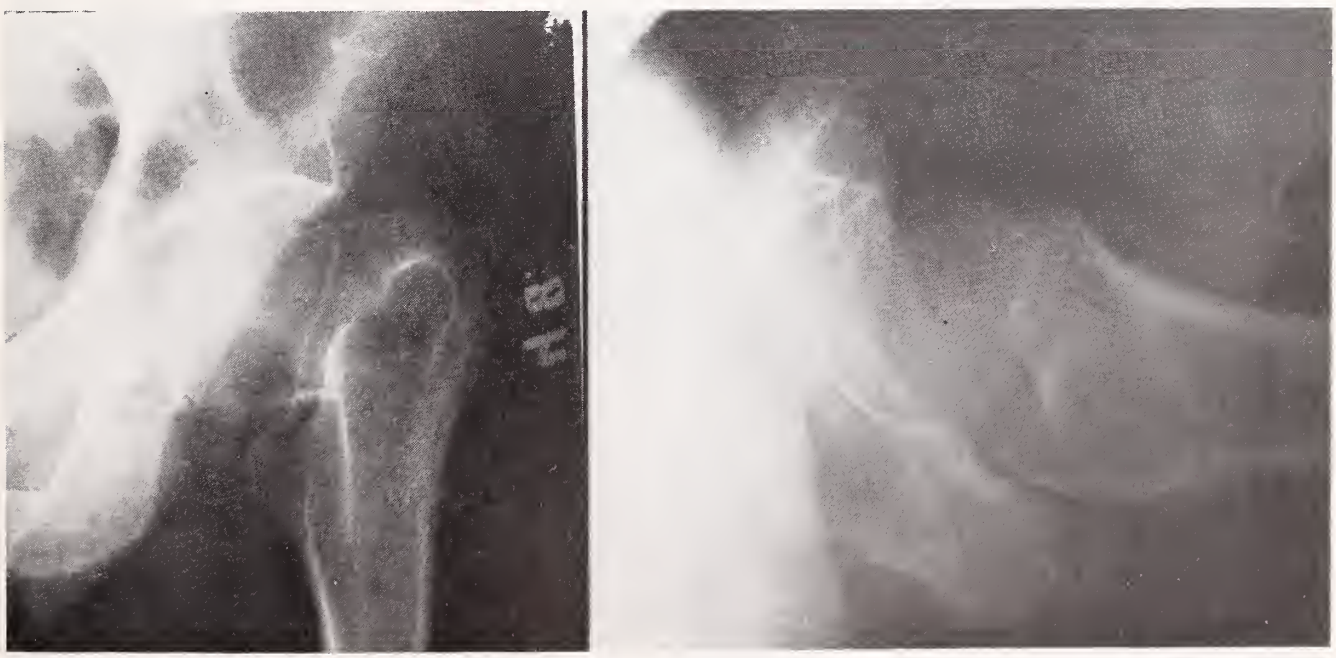


Figure 1-A. Femoral-neck fracture shows varus and external rotation.

PROPER REDUCTION

The aim should be to achieve good apposition and contact of the major fracture surfaces so that a stable internal fixation will allow uninterrupted repair. Fracture texts and an article by Larson[1] adequately cover the usual methods of achieving reduction. One should avoid excessive traction leading to distraction, as illustrated by Figures 1A and 1B. Release of traction permitted the femur to engage the femoral head prior to fixation (Figure 1C). Similarly, overreduction by excessive abduction and internal rotation to achieve an abduction position of the femoral head can prevent bony apposition (Figures 2A and 2B). Correction of this error required limb adduction and release of traction (Figure 2B). Internal fixation with a centrally placed nail and impaction gave excellent bony apposition (Figure 2C). Although bony union resulted by nine months, increased density of the anterior superior femoral head indicated necrosis and required treatment by bone grafting (Figure 2D).

Lack of impaction of a well reduced and nailed fracture may result in loss of position and displacement of the nail (Figures 3A and 3B). At times, improper reduction, interposition of fracture fragments or invagination of the visceral capsule prevents a stable reduction. After two attempts at reduction by closed means, an open reduction may be indicated.

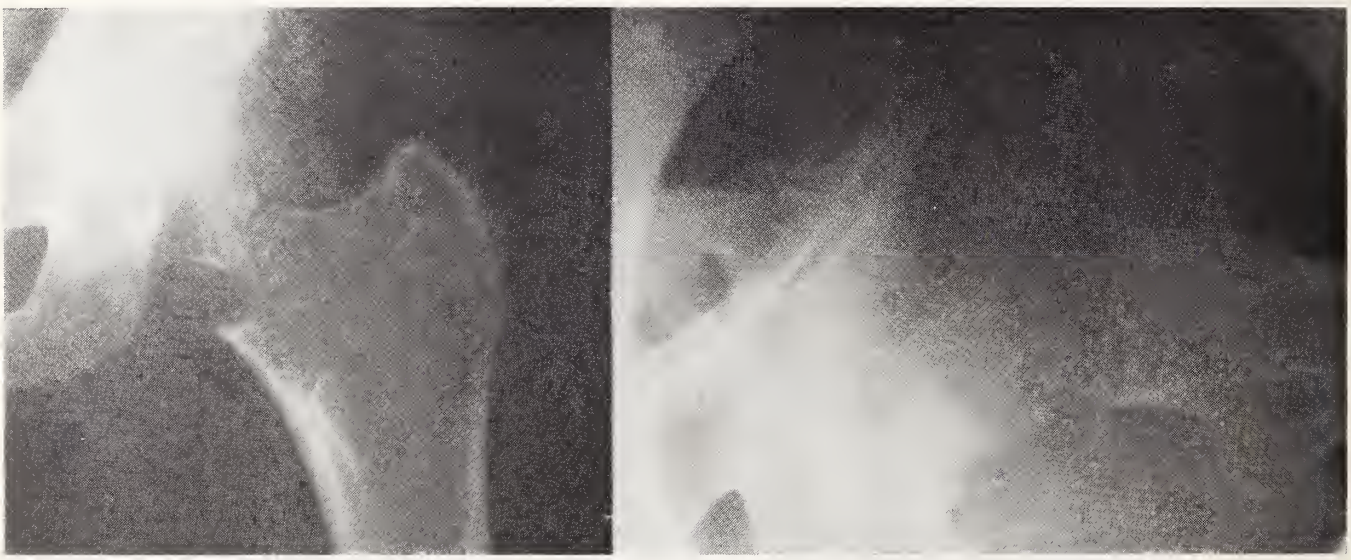


Figure 1-B. Distraction, valgus overreduction, and marked internal rotation and abduction of the femur are apparent.

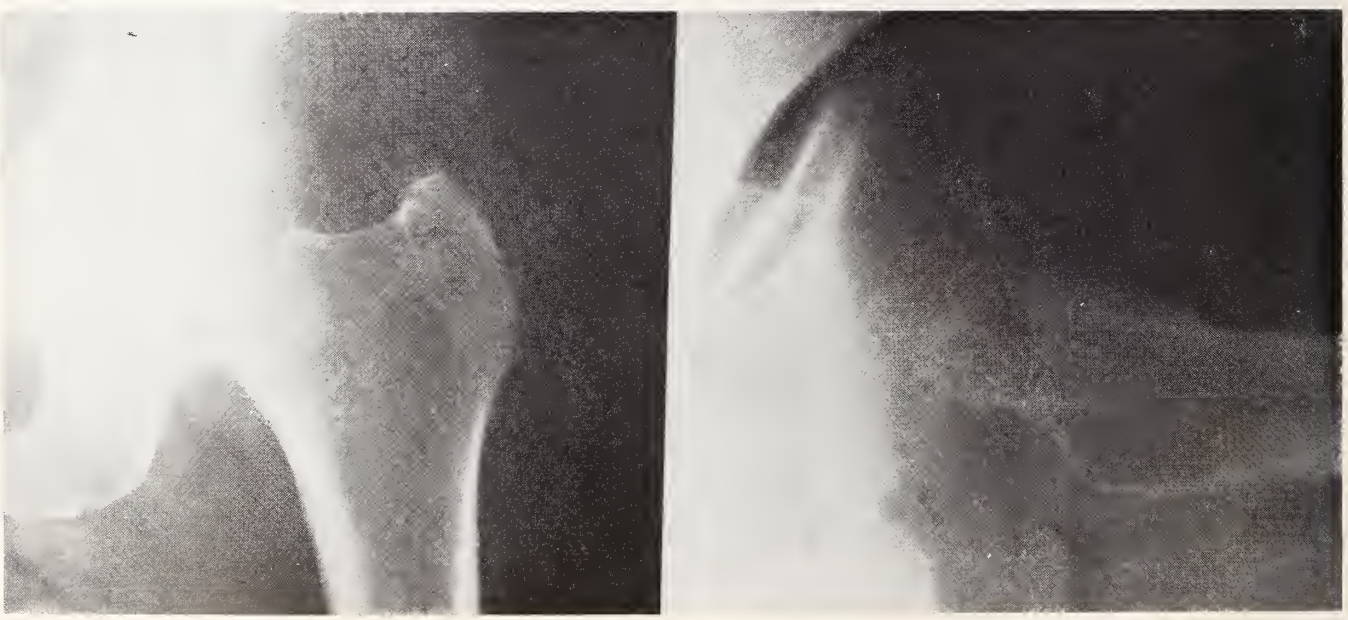


Figure 1-C. Reduction obtained after release of traction adduction of the femur.

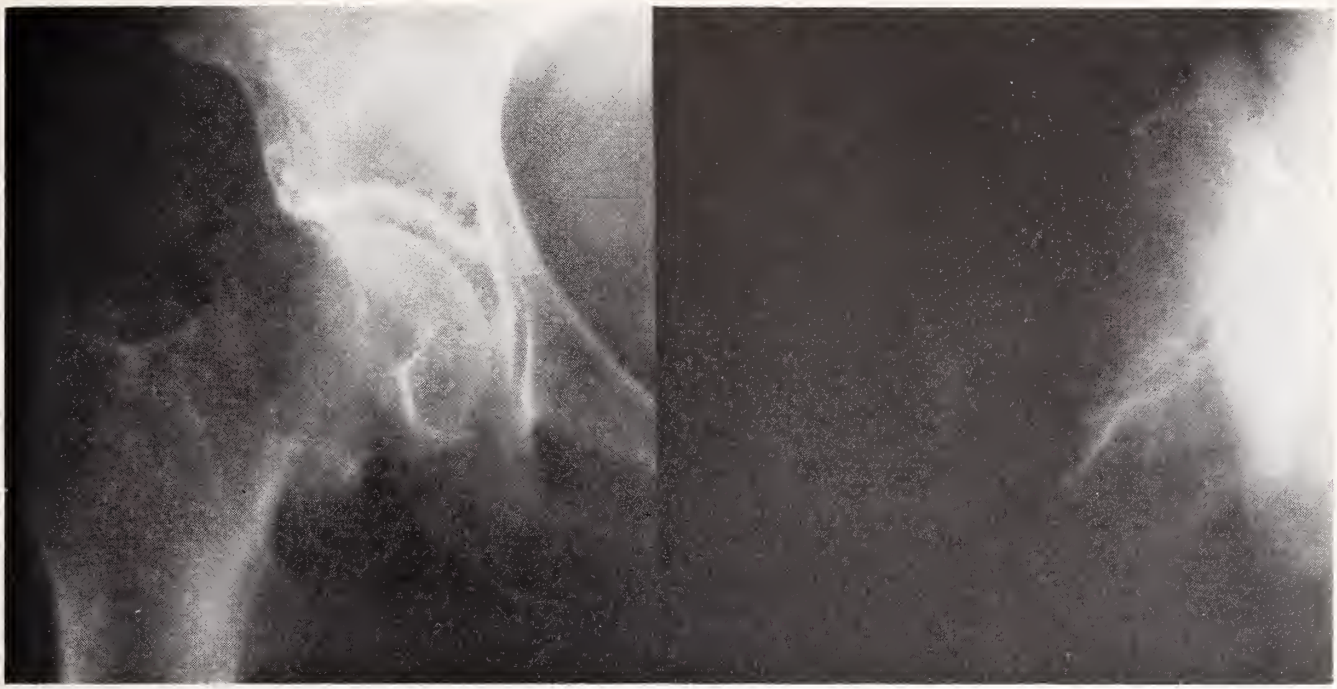


Figure 2-A. Femoral-neck fracture shows slight lateral and anterior displacement of the neck.

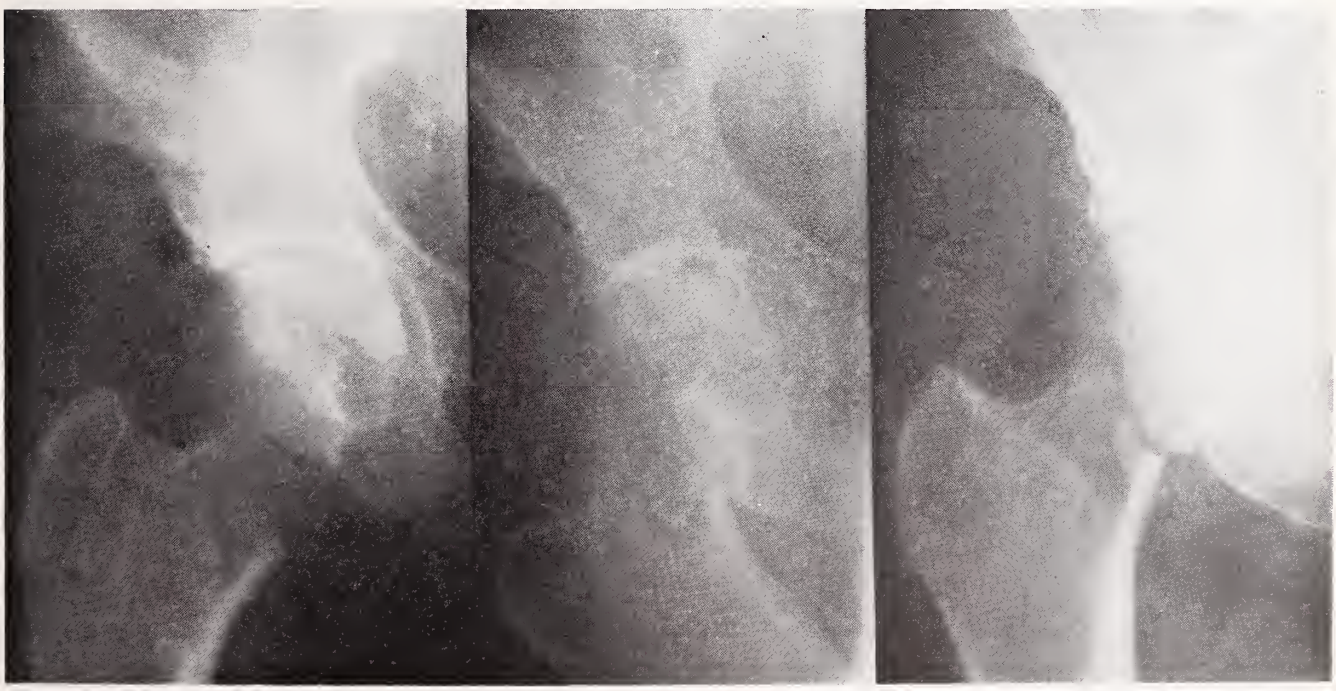


Figure 2-B. Marked overreduction with distraction corrected by adduction of the femur, and release of traction in neutral position.

PROPER INTERNAL FIXATION AND FEMORAL-HEAD SETTLING

Internal fixation by means of a nail centrally placed in the femoral head generally leads to favorable settling (Figure 4), whereas a nail eccentrically placed along the calcar may drive the femoral head into a poor position for proper settling (Figure 5). Often, in spite of a good reduction and a reasonably satisfactory internal fixation, an unfavorable settling results (Figure 6A). Early recognition of this situation should lead to prompt treatment or more frequent observation by roentgenography, to determine whether further displacement has occurred or the limit of settling has been reached. The decision regarding the type of treatment depends on the patient's general condition and on his pre-injury activity level, and on the skill or preference of the surgeon.[2]

In an active, healthy patient, every effort should be made to preserve the patient's own hip, and treatment should consist of the insertion of two tibial bone grafts and threaded pins.[3] In a patient with poor health or a low activity rate, the choice rests between femoral-head replacement with a prosthesis, or just removal of the femoral head alone. Because of further head-displacement into varus, disengagement of the nail and external rotation of the femur in a 76-year-old, inactive woman, a prosthesis was inserted (Figure 6B).

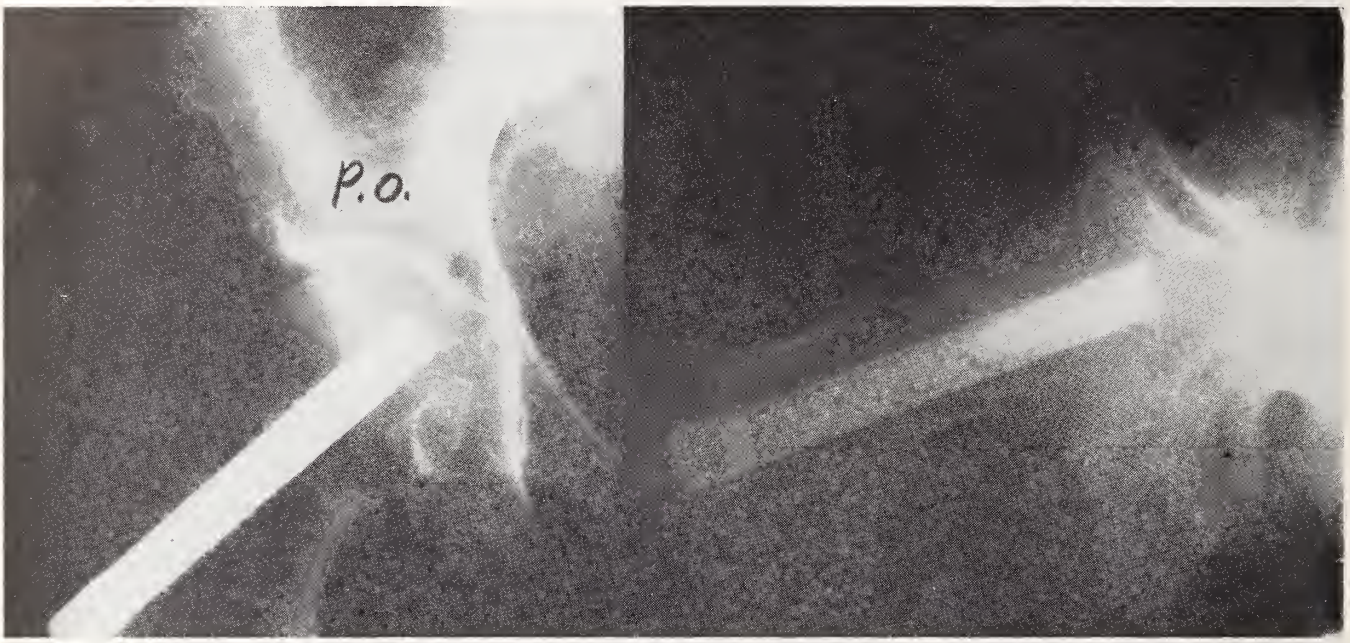


Figure 2-C. Central placement of the Smith-Petersen nail followed by impaction gave satisfactory fixation of the fracture.

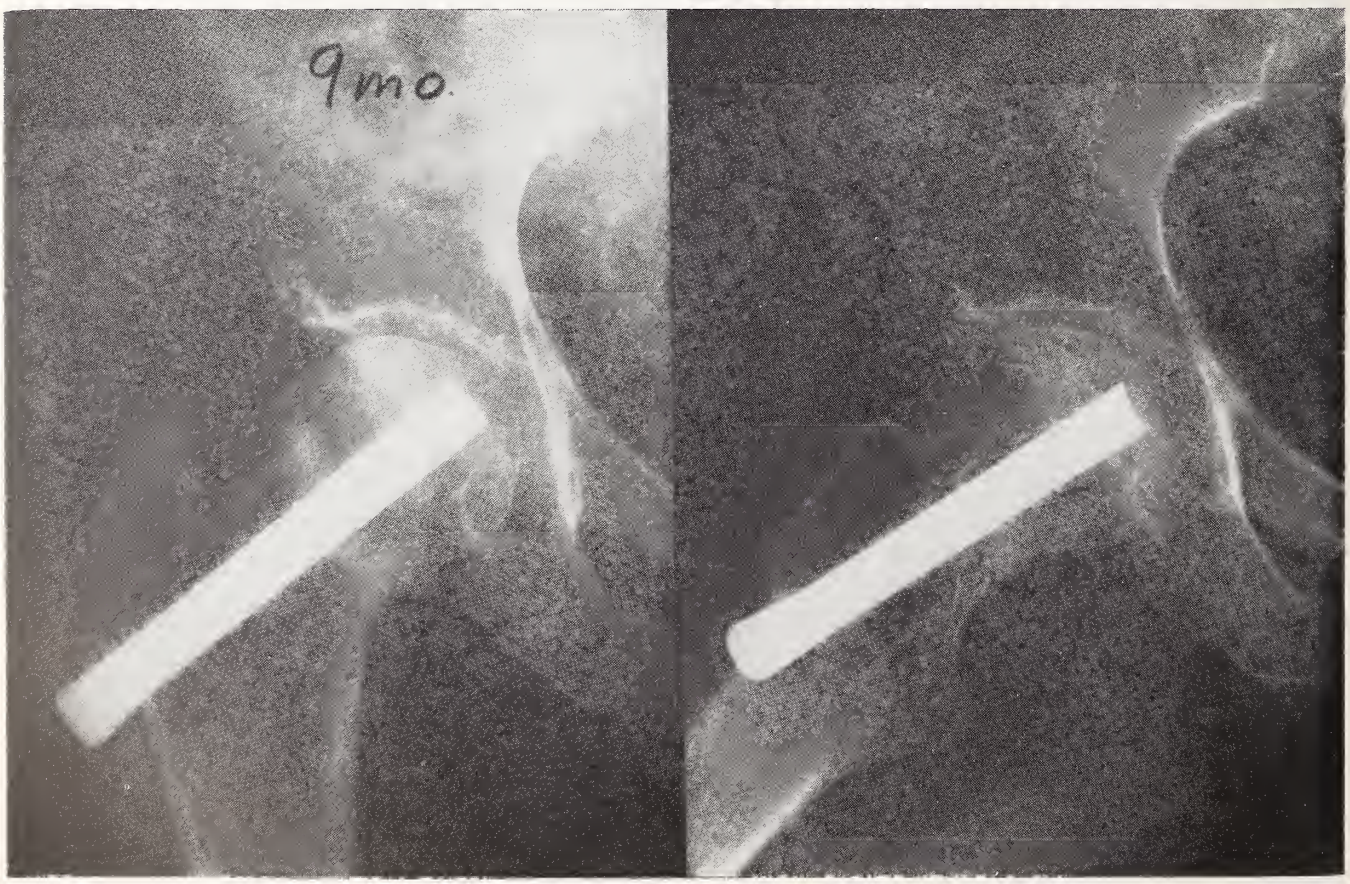


Figure 2-D. At nine months the fracture has united, but the anterior superior femoral head density has increased, indicating necrosis.



Figure 3-A. Insufficient fixation of the femoral head and lack of impaction are apparent.



Figure 3-B. Nail-displacement out of the head, and settling into varus have occurred.

NON-UNION AND ASEPTIC NECROSIS

Except for abduction femoral-neck fractures, union rarely occurs before six to nine months. In actual practice, the patient should carry out protected weight-bearing with crutches. Examination and roentgenograms at intervals of one month during the first six months, and every two to three months thereafter, will permit the surgeon to follow the course of healing (or non-healing) carefully, and to make the necessary observations about femoral-head viability. Early non-union can be suspected when minimal head-displacement continues, or when the nail backs out of the head. Necrosis can be suspected between three and six months post-fracture if atrophy of femoral-head trabeculae fails to occur, and the femoral head retains its original density. Comparison between the density of the normal hip and that

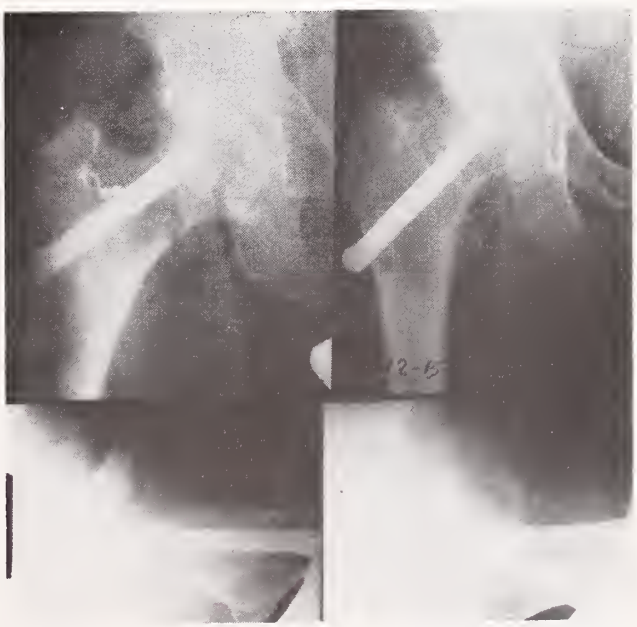


Figure 4. Favorable settling occurred two weeks after fracture-fixation with a centrally placed nail.

of the fractured hip helps to determine this change. As repair of a necrotic head ensues, the deposition of new bone on old, dead trabeculae permits an increase in radiologic density.[4] Clinically, the critical area is the weight-bearing superior anterior one-half of the femoral head. In most instances early treatment of both non-union and aseptic necrosis will provide the patient with bony union, repair of the necrotic bone and a satisfactory hip. The following cases illustrate these points.

CASE STUDIES

Case 1. E.W., a 67-year-old female, sustained a femoral-neck fracture and was treated by internal fixation with a Smith-Petersen nail (Figure 7A). The nail engaged only a small portion

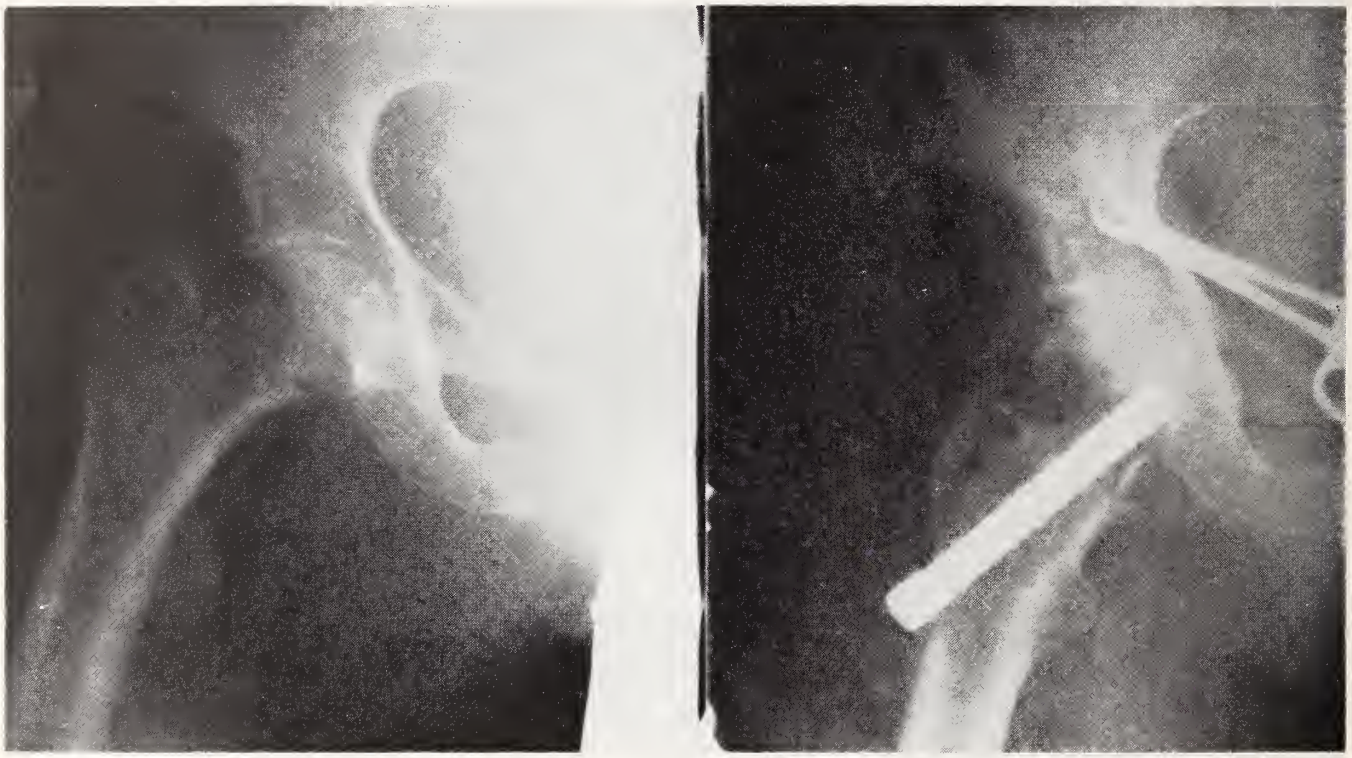


Figure 5. An eccentrically-inserted nail along the calcar femorale has displaced the head without achieving much purchase in it and has fractured the medial neck.



Figure 6-A. Unfavorable settling occurred in this fracture where impaction was not performed.

of the head inferiorly, so that with settling of the head into slight varus and external rotation of the femoral neck and shaft, fixation was lost at three months (Figure 7B).

The roentgenogram also shows a segmental area of increased density of the femoral head, without atrophy of the subchondral cortex in the weight-bearing area, but with atrophy in the medial portion. Without a change in the fracture position, insertion of two tibial bone grafts and three threaded pins led to union and



Figure 6-B. At eight weeks, nail displacement and loss of position of the fracture are evident.



Figure 7-B. At three months, nail has displaced out of the femoral head without loss of fracture position. Necrosis of the superior weight-bearing area is evident.

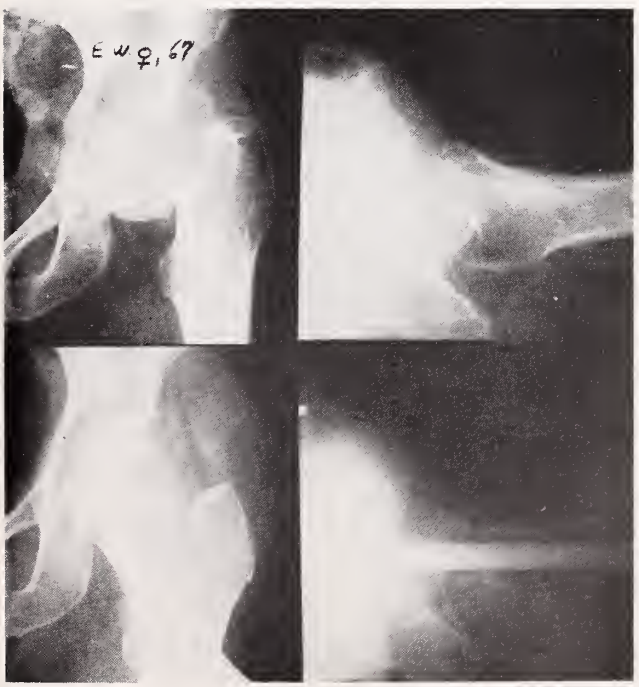


Figure 7-A. Femoral-neck fracture satisfactorily reduced but nail-fixation is inferior with little purchase on femoral head.



Figure 7-C. Union has occurred 14 months after insertion of two tibial bone grafts and threaded pins.

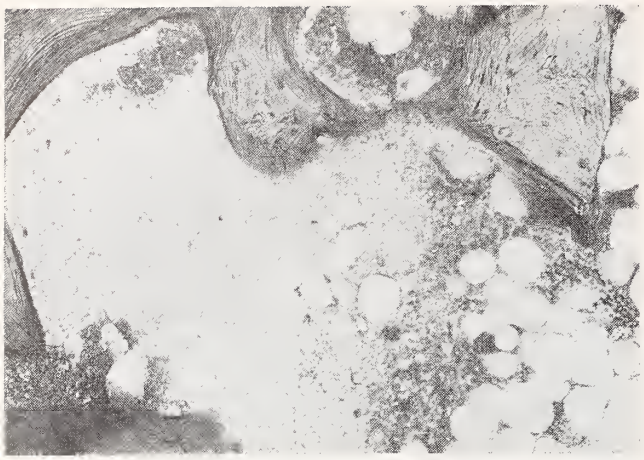


Figure 7-D. Photomicrograph of femoral-head biopsy demonstrates necrotic trabeculae, with small amount of marginal new bone and fibrovascular marrow.

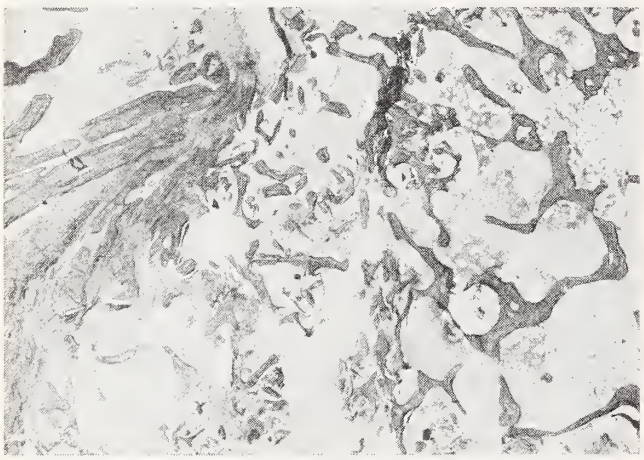


Figure 7-E. Photomicrograph from the fracture site shows fibrous non-union and trabecular fragmentation.

a satisfactory hip (Figure 7C). A microscopic section from a core of bone removed at the site of graft placement confirmed the presence of necrotic bone and fibrous repair marrow, and a small amount of new bone along one margin (Figure 7D). Fibrous tissue and fragmentation of trabeculae at the fracture site indicated failure of union at three months (Figure 7E). Seven years later the patient had an excellent hip (Figure 7F).

Case 2. M.S., a 74-year-old female, sustained

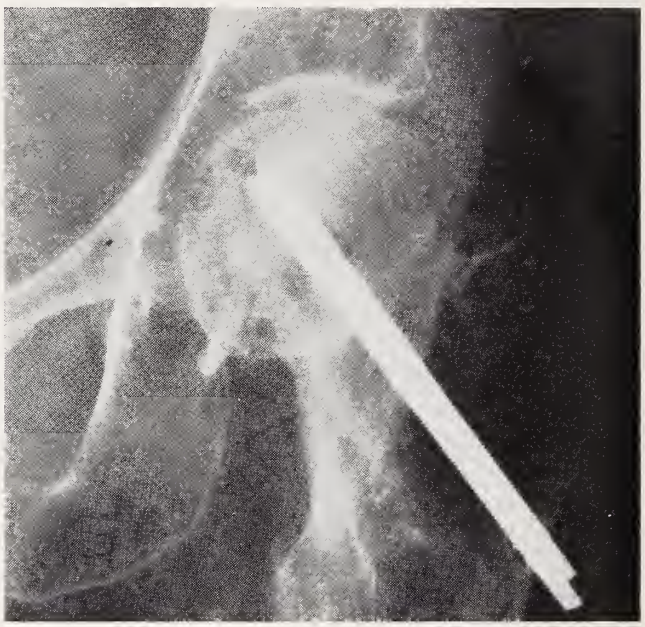


Figure 7-F. At seven years the result remains excellent.



Figure 8-A. Roentgenogram six months after internal fixation of femoral-neck fracture shows increased density of left femoral head, resorption at the fracture site, and nail displacement indicating aseptic necrosis and non-union.

a left femoral-neck fracture. Six months after internal fixation with a Smith-Petersen nail, roentgenograms showed a relatively dense femoral head, and displacement of the nail (Figure 8A). In addition, femoral-head resorption at the fracture site should be noted. This often accompanies aseptic necrosis with non-union. Insertion of grafts and pins permitted union within seven months (Figure 8B). Three years and four months after grafting, the patient had a satisfactory hip (Figure 8C).

SUMMARY

The early recognition of factors leading to failure of femoral-neck fracture repair should lead to improved results. The importance of proper reduction and internal fixation of femoral-neck fractures, observations on favorable and unfavorable settling, and the early signs of non-union and femoral-head necrosis have been emphasized. Prompt treatment includes bone grafting and insertion of threaded pins to provide union and femoral-head repair whenever

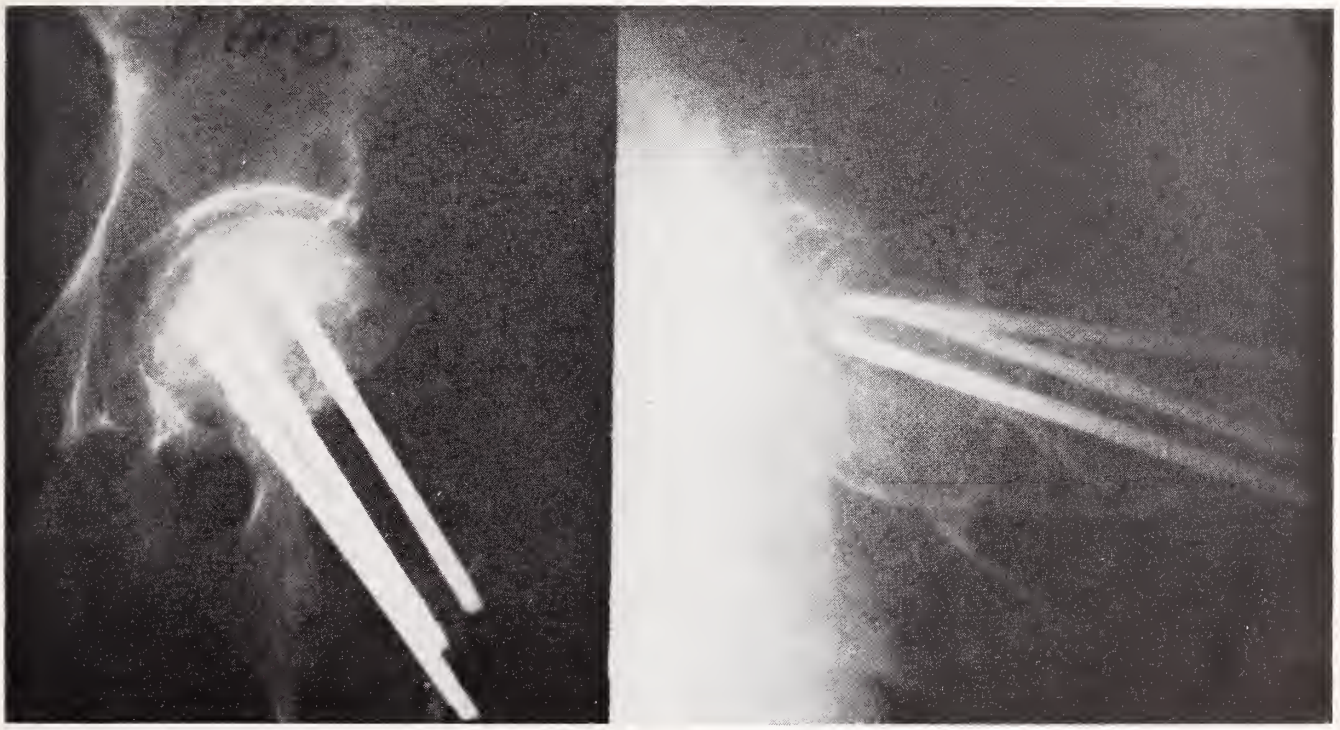


Figure 8-B. Seven months after bone grafting, roentgenograms demonstrate bony union and no collapse of femoral head with the increased density of repair bone.

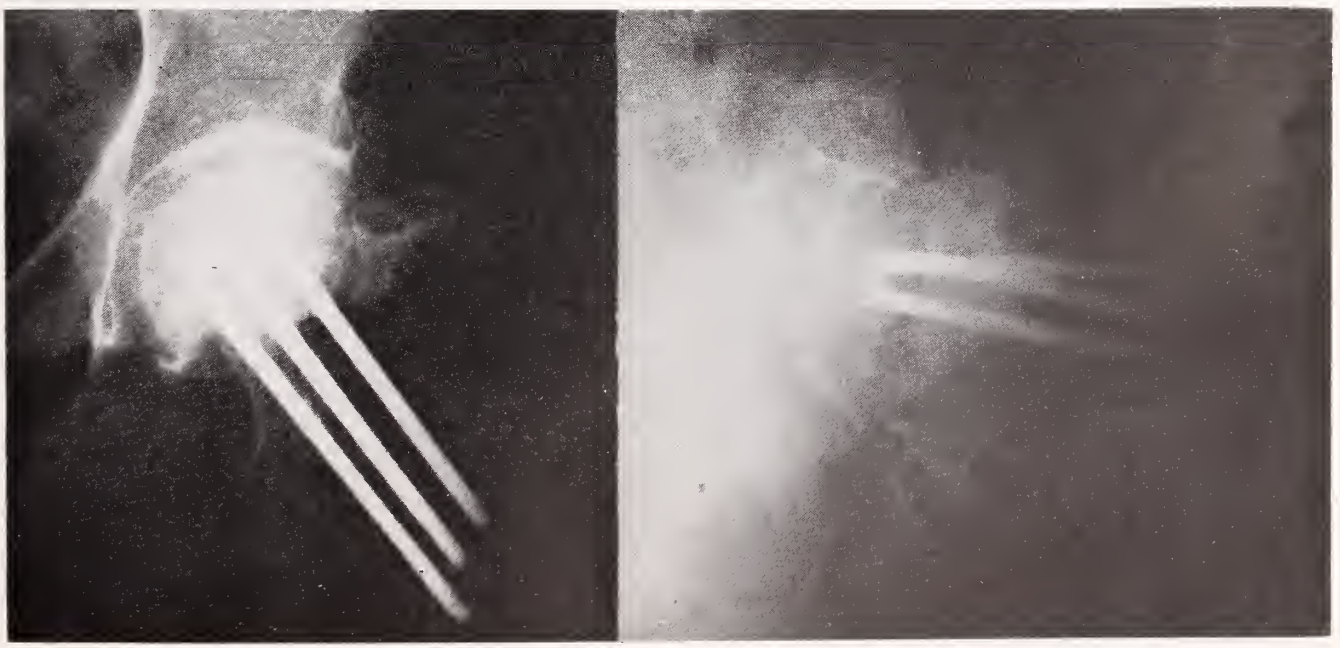


Figure 8-C. Three years and four months after bone grafting the result remains satisfactory.

the patient's general health and activity level permit, or consists of removal of the femoral head or the substitution of a prosthesis under other circumstances.

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Occlusive Disease of the Subclavian Artery

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M. S. LAWRENCE, M.D., and
J. L. EHRENHAFT, M.D.
Iowa City

THE INCREASING EMPLOYMENT of surgical treatment for extracranial cerebrovascular disease has been directly due to the development of angiography[1] and the increased safety of angioplastic procedures.

Occlusive disease of the subclavian artery can produce a variety of differing symptom patterns. Emphasis has recently been placed primarily upon the association between subclavian-artery obstruction and symptoms of vertebral-basilar insufficiency. The robbing of a significant amount of blood through the vertebral artery intended for the cerebral circulation and the producing of vertebral basilar insufficiency have been called "the subclavian steal," and now constitute a well-recognized entity.

An impetus to the understanding of this process was provided by the work of Reivich *et al.*[2] They demonstrated that in the dog a 41 per cent reduction in total cerebral blood flow occurs after occlusion of the left subclavian artery proximal to the vertebral artery. Cartoni first described it in a clinical setting in 1960.[3]

In many instances, however, there may be multiple lesions involving more than one branch of the aorta, although the symptoms are primarily due to involvement of only one branch. This is quite apropos of the subclavian branch, where the symptoms are twofold in origin, and may be subtle. They are twofold because they may be those of vertebral-basilar insufficiency or those of upper-extremity ischemia, and they may be subtle because the cerebral ischemia may be transient and varying in degree. The relationship between cerebral symptoms and upper-extremity exertion, moreover, may be difficult to detect and may become evident only after direct questioning. Frequently there is no relationship between the cerebral symptoms and the activity of the arm on the side of the obstructed subclavian artery.

The following five case reports reveal various aspects of this important clinical problem.

CASE 1

A 60-year-old white female was first seen in August, 1965. She complained of intermittent claudication of the left arm and shoulder, headaches, tinnitus, vertigo, three episodes of total blackout, and numbness and tingling of the hand and arm. She had angina pectoris relieved by nitroglycerin, and she was a diabetic under Tolbutamide control. She smoked two packages of cigarettes per day.

On physical examination there was a grade-2 hypertensive retinopathy. The carotid pulse was diminished on the right, and the left radial and subclavian pulses were absent. Bruits were heard over the right and left carotid arteries, as well as over the abdominal aorta and in the left supraclavicular area. The blood

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pressure was 240/80 in the right arm and 200/80 mm. Hg in the left.

The laboratory findings include a diabetic glucose-tolerance curve, a serum cholesterol of 290 mg. per cent, a decreased creatinine clearance, and nonspecific ST and T-segment changes on the EKG.

Angiography showed severe atherosclerosis of the abdominal aorta and the iliofemoral arteries, stenosis of the left renal artery, 25 per cent occlusion of both carotid arteries at their bifurcations, complete occlusion of the left subclavian artery at its origin, and rapid flow through the right carotid system, with rapid flow to the basilar and retrograde flow through the left vertebral to the left subclavian.

In September, 1965, under hypothermia, the subclavian artery was endarterectomized at its origin, and a vein patch was applied to the site of the arteriotomy. Postoperatively, her symptoms of left-arm claudication and basilar-artery insufficiency were completely relieved. A left Horner's syndrome caused her some difficulty in reading for a month, but it is of no concern to her now.

CASE 2

A 59-year-old man was seen because of numbness and tingling in his right arm and hand, which was of two years' duration and which interfered with his work as a carpenter. He had smoked cigarettes heavily for 40 years. There was a strong family history of diabetes. He had had myocardial infarctions four years and two years before this admission.

A bruit was heard in the right infraclavicular area. The blood pressure was 180/90 in the left arm and 160/80 mm. Hg in the right. Occlusion of the left carotid artery by digital compression quickly produced lightheadedness. Angiography revealed stenosis of the right subclavian artery and narrowing of the innominate artery. (Figure 1)

In March, 1968, under normothermia, an internal shunt was placed between the innominate and carotid arteries to assure cerebral flow during the endarterectomy. A saphenous-vein patch was applied across the involved vessels. Cardiac arrest, believed to be reflex in origin, occurred during the dissection of the vessels, but it was managed by the usual means of resuscitation, and no further problems occurred during or after the procedure. Postoperative angiograms (Figure 2) show relief of the obstructions. The patient's complaints have been completely relieved.



Figure 1. Preoperative angiogram showing stenosis of the right subclavian artery. The disease extended into the innominate vessel to a greater degree than the study shows.



Figure 2. Postoperative angiogram of the patient shown in Figure 1. A vein patch has been placed across the subclavian and innominate vessels after endarterectomy.



Figure 3. Angiogram showing severe narrowing of the subclavian artery. The symptoms of upper-extremity ischemia were relieved through a cervical incision and endarterectomy without patching.

CASE 3

A 60-year-old laborer was admitted because of intermittent, dull pain in his left arm, which was worse following activity and at times was associated with a loss of sensation in his fingers. He was unable to work in the winter because cold aggravated his symptoms to a severe degree.

The blood pressure was 100/70 in his left arm and 145/75 mm. Hg in his right arm. A bruit was heard in the left supraclavicular area. The remaining pulses were normal.

Angiography revealed almost complete obstruction of the left subclavian artery at the origin of the vertebral, and very little flow through it (Figure 3).

In January, 1968, the artery was explored through a left supraclavicular incision. The artery was endarterectomized and closed directly without patching. He has been able to return to full-time employment since the procedure.

CASE 4

A 56-year-old, white, female postal clerk was seen for the first time on August 1, 1968. Her chief complaint related to white spots in her right visual fields, which had been present off and on for two years. She also complained of lightheadedness, throbbing in the right ear, several recent episodes of unconsciousness, and one episode of transitory left-sided weakness. She also mentioned diplopia, occasional numbness and tingling of the face and headaches. There was a family history of diabetes, hypertension and coronary-artery disease. She smoked one package of cigarettes per day.

The blood pressure was 150/100 in her right arm and 130/100 mm. Hg in her left arm. When she was in a sitting position the blood pressure was 120/80 in her right arm and 90/60 mm. Hg in her left arm. The left radial pulse was absent, but the carotids were palpable bilaterally. A bruit was noted over the right supraclavicular fossa, as well as at the right carotid bifurcation. Funduscopic examination was negative, and the neurologic examination was also negative.

Angiography was performed, and the findings were mild atheromatous disease of the innominate artery, mild stenosis of the internal carotid on the right side, and extremely good filling of the right vertebral artery. In that series a left-vertebral steal was evident, with runoff into the left subclavian artery, and occlusion of the left subclavian artery 2 cm. proximal to the origin of the left vertebral artery. There was good filling of the anterior, middle and posterior cerebral branches, as well as of the posterior communicating artery.

A left carotid angiogram showed good filling of the internal carotid and of the anterior, middle and posterior cerebral arteries, and no evidence of obstruction. The venous drainage was normal.

On August 15, 1968, the patient was operated upon under moderate hypothermia. The innominate vein was divided. Endarterectomy of the subclavian artery was performed at its origin. A Dacron graft was inserted in an end-to-end fashion from the aortic arch to the distal transected subclavian, and the innominate vein was reanastomosed.

Postoperatively the patient had a good left-radial pulse, and she has had no remaining complaints.

CASE 5

A 59-year-old, white male truckdriver who had been in good health until one month prior

to admission was first seen in January, 1968. At that time the patient had developed a fainting spell, had passed out for a few seconds, and then had had a loss of vision for 40 minutes. His recovery from that episode was complete. His father had died at age 56, of a heart attack.

Physical examination revealed the absence of the left common carotid pulse. There was a bruit over the right subclavian artery in the right supraclavicular fossa, and there was a decreased radial pulse in the right arm. The blood pressure in his right arm was 120/80, and it was 144/84 mm. Hg in his left. A neurologic examination on admission was negative.

Percutaneous right-axillary angiography showed stenosis at the origin of the right subclavian artery and stenosis at the origin of the right vertebral artery. The left common carotid artery was completely occluded at its origin.

On January 18, 1968, under hypothermia, a right supraclavicular incision was made and was extended to the midline of the sternum. An internal shunt was used from the innominate to the right carotid, and endarterectomies of the subclavian and innominate arteries were carried out and were followed by vein-patch grafting. A good pulse was noted in the right subclavian and right carotid. The left carotid artery was not operated upon.

We advised the patient against returning to his job as a truckdriver because his left common carotid remains completely occluded. Yet his symptoms have been improved, except for occasional lightheadedness.

THE CLINICAL PICTURE

The symptoms of upper-extremity ischemia are almost always present to some degree in these patients. They include weakness of the hand and arm, paresthesias in the fingers and coldness of the extremity. Use of the extremity often exaggerates these symptoms, but not necessarily so. They are often relieved by rest and by letting the arm hang down. The symptoms of vertebral basilar insufficiency occur less frequently, and characteristically they include intermittent, shortlived episodes of vertigo, together with bilateral vision difficulties in the form of diplopia or blurred vision. Headaches, when present, are occipital, intense, persistent, throbbing and aggravated by changes in position. The most consistent and important physical finding is a difference of 20 mm. Hg or more in blood pressure between the two arms. The systolic bruit may be heard above or below the clavicle, and a difference in skin temperature between the two arms is discernible.

ETIOLOGY

Several factors have been held responsible for the occlusive process in the brachiocephalic trunks. Among these are luetic aortitis, healed dissections, general anomalies and non-specific arteritis. Another is Martorell's[4] or Takayashu's[5] arteritis, which is an inflammatory process similar histologically to thromboangitis obliterans. It is most common in women and in Orientals, and has the additional effects of facial atrophy, orthostatic hypertension, seizures and cataracts, which collectively have made it what seems to be a separate and unusual entity. Congenital aortic-arch abnormalities, embolism, iatrogenic occlusion after Blalock-Taussig anastomosis and trauma are less common but well documented causes of subclavian-artery obstruction, and in each instance the subclavian-steal phenomenon may occur, depending on the site of the obstruction. When the third part of the subclavian artery is occluded, one should think of obstruction due to an osseous or myofascial constricting band. Here the scalene triangle, with its relatively fixed osseous and myofascial structures, bears the same relationship as the adductor canal to the occlusion of the superficial femoral artery.[6] By far the most common etiology is atherosclerosis; it is responsible for the vast majority of cases.

DISCUSSION

Vertigo and diplopia are signs linked to basilar-artery insufficiency. However it must be recognized that 25 per cent of patients with predominant carotid artery occlusive disease will have these symptoms and will obtain relief from them after carotid endarterectomy.[7] This is contrary to our established set of vascular syndromes, and can be a source of confusion. In these instances it is impossible to demonstrate any filling of the posterior cerebral artery after the carotid injection, and thus it seems that the preferential flow to the cerebellum and midbrain was by way of the vertebral artery. A high incidence of diplopia and vertigo in patients with carotid stenosis, though we were taught that it occurs principally with basilar-

artery insufficiency, is one example of the fact that various syndromes which we think of as containing sets of characteristic symptoms cannot be differentiated accurately and consistently enough on clinical grounds alone. Therefore arteriography becomes an essential part of the evaluation of the patient. When arteriograms are done, all of the four main vessels to the brain should be visualized.

No doubt a bruit is an important finding, but it is most significant when it is associated with symptoms. In a group of patients, all over 40 years of age, who were followed for two years, bruits alone were not associated with an increased incidence of stroke. In fact, stroke is more common in patients *without* bruits, and death occurs after stroke more frequently in patients in whom bruits were not audible at the time of the original attacks. Actually a decrease in the audibility of the bruit may indicate a higher grade of obstruction. In the absence of symptoms, there is no indication for surgery in patients who have been found incidentally to have signs of stenosis or occlusion of a subclavian artery.

Bryant and Spencer[9] have followed 11 of 14 patients after successful subclavian-artery surgery for lengths of time up to four years, and have found a sustained improvement in the patients. Killen *et al.*[10] found over 180 cases of the subclavian-steal syndrome reported in the literature up to 1966, in which the results were similarly good. The results in this small number of patients seem to justify the surgical approach. In the case of carotid surgery, some series including thousands of patients had a low mortality (1 to 2 per cent) and immediate improvement, but follow-up studies of sufficient quality must be done in order to provide us important information as to whether these procedures have value in the prevention of stroke or in the prolongation of life.

The procedures that have been employed successfully in relieving subclavian obstructions include endarterectomy, with or without patches, resection of the occluded segment and replacement with a prosthetic or vein graft, or transposition of the involved vessels. All of these procedures[8] have been employed as well for the subclavian-steal syndrome, and one other has been added. Rob[11] proposed unilateral vertebral-artery ligation in cases where the vascular disease was advanced and diffuse. Dandy[12] stated, in 1944, that both vertebral arteries can be ligated at the same time with impunity. This can be done in cases of subclavian-steal because if the patient has survived his own reversal of flow, ligation of the vertebral artery should improve flow to the brain. Yum *et al.*[13] have recently applied this simple procedure successfully, and feel it is especially applicable in patients who are very poor surgical risks. Viability and function of the ipsilateral arm are not impaired because blood flow to that arm is mainly through the internal mammary artery acting as the principal collateral.

SUMMARY

Occlusive disease of the subclavian artery is usually arteriosclerotic in origin. Although it is often accompanied by disease in other locations, it frequently is predominant in producing symptoms.

The symptoms are twofold—those attending upper-extremity ischemia or those of vertebral-basilar insufficiency. A steal via the vertebral to the subclavian is a well-recognized entity. Angiography, however, is essential to a full understanding of the relationships between clinical symptoms and specific lesions.

The results of surgery in this area are immediately gratifying. Studies to determine their value in preventing stroke and prolonging life are now in progress.

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Grief

RUSSELL NOYES, JR., M.D.

> Because my grief seems quiet and apart,
> Think not for such a reason it is less.
> True sorrow makes a silence in the heart,
> Joy has its friends, but grief its loneliness.
>
> A Cedar Box (1929), Sonnet VII
> by Robert Nathan

THE DEATH of a loved one may bring with it a deep sense of aloneness, fear, and despair. Grief, though a symptomatic state, is regarded as normal perhaps because the condition which gives rise to it is one to which we are continuously exposed. This view has recently been challenged by students of the subject who have emphasized that severe and crippling reactions frequently follow major losses. Whether or not we regard grief as an illness, we must acknowledge the magnitude of the stress which gives rise to the syndrome and its potential for complicated outcome.

With the recent emphasis in psychiatry upon prevention, grief has emerged as a model of human crisis. Under favorable circumstances and under the influence of timely professional intervention, such a crisis might be resolved and even lead to personality growth. Under less favorable circumstances, regression in personality functioning might occur, involving the development of emotional illness. For the physician, grief may represent an unwelcome reminder of his eventual defeat in the struggle to save human life. Like the society of which he is a part, he may seek to turn away from such telling evidence of the frailty of existence and of the failure of his knowledge in the face of death. Harboring such an attitude, he may shrink from attending those who are grieved, just as his uneasiness often makes it difficult for him to approach the bedside of the dying. With these thoughts in mind I should like to review the syndrome of grief, considering first its normal course and then the morbidity and mortality that may be associated with it. Factors affecting the outcome will be considered in addition to recommendations for intervention.

For the sake of clarity, three terms should be defined. *Bereavement*, according to WEBSTER'S INTERNATIONAL DICTIONARY, refers to the "state or fact of being bereaved; deprivation; especially the loss of a loved one by death." Grief is the "mental suffering especially such as follows from bereavement." *Mourning* refers to the "act of sorrowing or expressing grief." In other words, *bereavement* refers to the state of one who has suffered a loss, *grief* to his subjective distress as a result of his loss, and *mourning* to his outward behavioral expression of that distress. These terms are often used interchangeably.

NORMAL GRIEF

In 1944, Lindemann, in a classical paper on the subject, described in detail the symptoms of normal grief, in part as a result of his observations of the survivors of victims of the tragic Coconut Grove Night Club fire.[3] He was struck by the remarkable uniformity of the syndrome and listed five features as pathognomonic. These included: somatic distress, preoccupation with the image of the deceased, guilt, hostility, and a loss of patterns of conduct. Unless a person is prepared for the loss he experiences, his initial reaction is usually one of shock or numbness. He appears not to accept the reality of the situation, and behaves as if nothing has happened and as though the deceased still lives. His emotional responses may be blunted, and he may experience a sense of unreality or distance from the world about him. As this numbness disappears, the pathognomic features of the syndrome appear. Sensations of somatic distress occur in waves lasting from twenty minutes to an hour, and they consist of shortness of breath with sighing respirations, palpitations, an empty feeling in the stomach, weakness, and marked anxiety. There is an intense preoccupation with memories of the deceased. At times there may be a feeling of the deceased's

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presence, and not rarely dream-like visits from the departed are reported as occurring at night. Feelings of guilt and regretful ruminations often occur regarding events surrounding the death and omissions in the relationship which existed prior to it. Feelings of bitterness and resentment toward others including God or fate are frequent and often intense. The bereaved finds himself restless, aimless, and unable to initiate organized patterns of activity.

The intensity of grief gradually declines over the course of a number of weeks to a few months, although for years or even a lifetime, reminders of the dead person may rearouse feelings of emptiness and loss. Often grief is initiated not by the actual death of the loved one but rather by the anticipation of his or her death when a fatal prognosis is certain. In fact, in some cases of prolonged terminal illness, the grief reaction may have run its course by the time death has arrived. In these instances the death is experienced with a sense of relief.

The duration of grief is dependent upon a number of factors, the most important of which can usually be identified in an individual case. The major factors can be briefly described. The sufferer must replace the loss he has experienced, and the greater the loss the more intense the reaction. The magnitude of the loss is increased in instances where the person has been emotionally dependent upon the deceased, where he has few other close attachments, and to some extent, where the death was sudden or unexpected. The loss is magnified in instances where the person who passed away represented a key person in a social system which, following his death, disintegrates, leaving the bereaved to face profound alterations of social and economic conditions. The nature of the relationship that existed between the survivor and the deceased influences the outcome of the grief. Where this relationship was ambivalent—i.e. was one involving resentment as well as affection—the reaction becomes intensified by feelings of guilt with their poisoning effect upon the sufferer. Such feelings complicate the bereaved individual's task of disengaging himself from his emotional attachment to the departed.

The health of the bereaved, both physical and psychological, has frequently been found to have a significant bearing upon the outcome of grief. One interesting observation has been that in later life there occurs a preponderance of somatic illness in response to bereavement, and that the mental manifestations of grief are minimal or even absent. The time relationship between the onset or accentuation of such illness has been observed to be close. Those in ill health at the time of bereavement must be counted as more vulnerable to the shock. Individuals with histories of neurotic reactions, especially of the depressive variety, are thought likely to experience severe or complicated mourning. Personality features enter into the success of mourning. Bereaved persons who because of inhibition are unable to express their feelings of grief will encounter difficulty in resolving their distress. Likewise those who cannot tolerate even temporary emotional dependence upon another comforting human being will find their task more difficult.

Of perhaps equal significance in determining the severity and the outcome of grief is the encouragement or support in mourning which the bereaved receives. Lindemann used the term "grief work" to refer to the tasks facing the mourner. Those, he said, include emancipation from the bondage of the deceased, readjustment to the environment in which the deceased is missing, and the formation of new relationships.[3] The widow who hides her grief —something which she might do for fear of exposing her young children to it—may experience a prolonged reaction. It appears that our society has relaxed its expectations and consequently its supoprt of today's mourner. Dressing in black and remaining absent from work, as well as other prescribed behaviors, are less frequently followed.

MORBIDITY

Grief is not always a self-limited process. When one or several of the above factors are unfavorable, complicated reactions may result. These reactions tend to be of three types: the chronic, the delayed, and the inhibited.

Chronic grief is an abnormal prolongation of grief in which all the features typical of grief are present, though some may be particularly prominent. Patients who have experienced bereavement are often found among psychiatric patients diagnosed as having depressive neurosis. They may be found to be

preoccupied with the memory of the departed, suffering attacks of anxiety and pining two or more years after their bereavement. The following is an example of a reaction which was intense and prolonged.

Mrs. D., a 29-year old widow, required a period of nine months and psychotherapeutic intervention to resolve the grief resulting from the death of her husband on April 25, 1967. On the morning of that day, she returned home to find her husband lying dead on the floor of their apartment. It was clear that he had committed suicide by taking an overdose of medication—an action which he had said he was considering in the days prior to his death. For several days to a week, she reacted as though nothing had happend, and described herself as apparently oblivious to her loss. She conducted her affairs with no obvious outward sign of distress. Gradually, however, she began to experience a feeling of numbness and emotional distance from things and people about her. At times during the next three months, she denied the fact of her husband's death as she prepared for his return home and did other things which suggested her belief that he was still alive. When asked, she was able to state with certainty that her husband was indeed dead but that this realization was too painful to bear. Awareness of her loss was accompanied by waves of physical distress, which included weakness, palpitations, shortness of breath, and a feeling of heaviness in her stomach. She experienced a decrease in appetite, spells of crying, a feeling of blueness, restlessness, and an inability to concentrate.

The D.'s marriage of nine years had been a discordant one. He had been an intensely competitive, anxious individual with feelings of inadequacy related to his work and an expectation of defeat wherever he might turn. He had been treated for a phobic neurosis, and at that time he had described his marriage as troubled. He described his wife as extremely efficient, belittling, and rejecting of him sexually. She had given only limited acceptance to his neurotic symptoms, and several days prior to his death had withdrawn her support from him as he had grown pleading and demanding, much like a child seeking parental support and protection. Mrs. D. herself gave a history of psychiatric treatment. She had obtained it when she experienced symptoms of depression following the death of her father.

Five months following the death of her husband Mrs. D. sought psychiatric assistance. At that time she continued to be in considerable distress. She sobbed and was unable to maintain her composure. She complained of somatic distress, poor appetite, sadness and an inability to concentrate. She expressed the feeling she had killed her husband by turning away from him in his hour of need, and she indicated that both her family and his blamed her for his death. A series of amytal interviews were initiated for the purpose of helping her express her grief. During these she often sobbed violently. At times she spoke and behaved as though her husband were still alive, recreating in intimate detail the events immediately prior to his suicide. Following these interviews she experienced a great sense of relief. As they progressed, she began to express her rage over his having deserted her, and she acknowledged the extent of the anger she had felt toward him before his death. Nine months after the death of her husband she had regained good spirits, enjoyment of friends, and interest in her work. At that time her grief appeared to have been substantially resolved.

There are three factors which were probably significant in prolonging this young woman's reaction and which might have allowed one to predict such a complication. According to her history, Mrs. D. was susceptible to depression. Her husband's death by suicide was not only sudden and perhaps unexpected, but could be seen as a deliberate and hostile act designed to provoke guilt on the part of his surviving wife. Their relationship had been an ambivalent one, with Mrs. D. having feelings of resentment toward her husband which readily became a source of guilt following his death.

Delayed grief, as the term implies, refers to the expression of grief which is delayed weeks, months, or even years after the loss. Often a postponement of grief occurs because circumstances demand that important tasks be confronted and the morale of others be maintained. Only at some later time when another perhaps less significant loss reopens the old wound does the full reaction appear. The suf-

ferer is aware of his preoccupation with an earlier loss and experiences grief in its typical form.

According to one author, a third type of complication can be called *inhibited grief*.[6] Here the bereaved person may experience or express no grief. Only later does it become apparent that the sorrowing has not been absent but has awaited expression in the form of a neurotic, psychosomatic, or other disorder.

The morbidity associated with grief has been the source of several recent investigations. In a study designed to examine the relationship between recent bereavement and mental illness, Parkes found that the number of patients whose illness followed the loss of a spouse was six times greater than expected in a large population of hospitalized patients.[7] He reported that the incidence of depressions, particularly of the neurotic type, was significantly greater among bereaved than non-bereaved patients. Whether or not grief and depression can be differentiated qualitatively remains uncertain. The effects upon the physical health of bereaved persons has been examined. In a study of 72 young widows Marris found that 43 per cent thought that their health was worse when they were interviewed one to three years after bereavement than it had been before their loss.[4] Quite a variety of "psychosomatic" illnesses have been linked to grief, such as rheumatoid arthritis, hyperthyroidism and bronchial asthma. Extreme caution must be urged in interpreting findings in this area as indicating a causal relationship. Evidence for this is lacking. Parkes reported on the number of consultations made during the six-month period following the bereavements of 44 London widows.[5] He found that during the post-bereavement period a 63 per cent increase occurred over the consultation rate for the pre-bereavement period. The rate rose from 2.2 consultations during pre-bereavement to 3.6 during the post-bereavement period. Not only were the psychiatric consultations increased, but also those for a variety of chronic conditions such as osteoarthritis and rheumatism. Interestingly, consultations for acute conditions such as infections showed little change, and there was no increase in the number of psychiatric consultations in the cases of widows over 65 years of age. Whatever the explanation of these findings, it is clear that during the period of mourning patients consult their physicians more often and at such a time present problems relating to the course, complications and treatment of grief.

MORTALITY

While "griefe" was listed officially as a cause of death 200 years ago in England, physicians today tend to scoff at the idea that the loss of a loved one can contribute to death. And yet the common phrase "died of a broken heart" may reflect an intuitive awareness of the role that grief may have in death. Tolstoy says, commenting in WAR AND PEACE on Prince Andrei's death,

"When it is a beloved and intimate human being that is dying, besides the horror at the extinction of life there is a severence, a spiritual wound, which like a physical wound is sometimes fatal and sometimes heals . . ."

The following case is one of those which causes us to ask whether there may not be an association between bereavement and death:

Mrs. M., a 62-year-old lady, was admitted to the Iowa State Psychopathic Hospital in May, 1968. Her admission was precipitated by the concern of her sister, who stated that following the death of Mrs. M.'s husband two weeks earlier, she had grown progressively lethargic and had shown a lack of interest in anything.

Mrs. M. had weathered serious illnesses and had had two breasts removed for cancer, the first, 20 years prior to the final illnesses and the second 10 years later, followed by radium treatments. She had, however, remained active, and there had been no evidence of recurrence of the malignancy. She had always been very close to and dependent upon her husband, who had farmed a small acreage. Five years prior to her hospitalization, her husband developed cancer of the mouth and it was treated surgically. In the course of his chronically deteriorating illness, the couple became increasingly isolated socially. As her husband became critically ill and consequently more dependent and demanding, Mrs. M. became more responsible and assumed the care and management of her husband in every detail. He insisted that he not be left alone, and would not substitute radio or television in place of having her at his side. During his final illness she continued to wait on

him as much as possible, and despite complaints of nervousness she retained her general good health. Finally, however, the record states that her husband "gave up." His death occurred on April 11, 1968. Since his death Mrs. M. likewise appeared to have given up on everything. She maintained poor contact with her surroundings and sat with a vacant expression upon her face for the greater part of each day. In addition, during this two-week period, she had developed swelling of her feet and shortness of breath.

At the time of admission Mrs. M. appeared quite ill. Her breathing was labored at rest, and there was edema of her lower extremities. Her color was dusky. She was lethargic and moved slowly, with an increase in dyspnea. She was not spontaneous in her speech and responded briefly to questions. She specifically denied depression but reported at times feeling "riled up." Her face was expressionless and her movements meager. The diagnoses recorded at the time of admission were arteriosclerotic heart disease with congestive failure, and post-radiation fibrosis of the left lung.

Her physical condition warranted immediate attention, and she was transferred to the medical service. There, she showed temporary improvement. Her congestive failure responded well to digitalization and intermittent diuretics. The pneumonia that she developed responded to penicillin. However, she remained apathetic and required extensive care. She was discharged in a semi-vegetative state to a nursing home where she expired on June 24, 1968, slightly longer than two months after the death of her husband. The cause of her death was listed as chronic myocarditis.

Was the timing of this individual's death coincidental or in some way related to the death of her husband? Several factors might have increased her vulnerability to the loss she experienced. Because of her dependence upon her husband and her social isolation, her loss was increased. Very probably his lingering illness and need for care had stirred resentment within her and had given rise to feelings of guilt at the time of his death. Her own frail health no doubt diminished her resistance to such an emotional insult. It is of interest to note the family's interpretation that both she and her husband finally "gave up," suggesting that their deaths followed acts of will or even decisions to die. The anatomical cause of death recorded on the death certificate—chronic myocarditis—contributes little to an understanding of the time, manner or psychological and social meanings of this person's death.

Recently the notion that bereavement may be associated with an increased mortality rate has received statistical confirmation. In 1959 Kraus and Lilienfeld made a study of mortality by marital status, based on all deaths in the United States from 1949-1951.[2] They reported that married people had a lower death rate at every age than had those who were widowed, single, or divorced. For all ages, widowed persons showed a mortality rate 46 per cent greater than did the married. This relative excess mortality in the widowed group was greater at the younger ages, was consistently greater in men, and was particularly high for a variety of causes including tuberculosis, influenza, pneumonia, cirrhosis, suicide, and accidents. Stimulated by this report, Young, *et al.* undertook an inquiry with the purpose of determining the duration of this increased mortality rate following bereavement.[10] Confining their study to 4,486 widowers 55 years of age and older whose wives had died in 1957, they found a 40 per cent increase in the mortality rate six months after bereavement. This was followed by a fall back to the rates for married men by the end of one year. At six months, 213 deaths had occurred—exceeding by 65 the 148 deaths expected according to the rates for married men. In 1967 Rees and Lutkins reported on an investigation of the effect of bereavement upon close relatives in a semi-rural community in Wales.[9] They reported that 4.76 per cent of bereaved close relatives (spouses, parents, children, or siblings) died within one year following bereavement, compared with 0.68 per cent of those in the control group. The risk was found to be greater for male than for female surviving relatives, and the increase in risk was particularly great for widowed persons. During the first year following bereavement, 12.2 per cent of widowed people died, compared with 1.2 per cent in the control group. The authors also found the risk to be greater among men. Nineteen and six-tenths per cent of widowers died, in contrast to 8.5 per cent of widows. They also observed an

interesting relationship between the place at which a person died and the subsequent mortality of bereaved relatives. Deaths of individuals at sites other than home or hospital (e.g., road, golf course, etc.) were followed five times more frequently by the deaths of one or more close relatives, suggesting that a sudden and unexpected loss may be especially devastating.

Can a person die of grief? The question is too simple and invites misleading generalizations. We should look upon death as an event occurring within a field of unspecified and varied biological, psychological, and social forces. In an article entitled "Emotional Precipitants of Death," Davidson gives an example of this concept: [1]

"Since death is the cessation of a somatic process, the final link must be a somatic one, even though the precipitating factor be emotional. Suppose a man has brittle arteries and high blood pressure. In a political argument he becomes excited, his blood pressure mounts; the fragile lenticulostriate artery cannot stand the rising pressure and it blows out, causing fatal apoplexy. What was the cause of death? On the certificate, the cause was "cerebral hemorrhage" or perhaps "hypertensive cardiovascular disease." But in another sense, the cause was rage, induced by a political argument which precipitated the fatal apoplexy. Indeed, it is not overdramatizing it to say that the patient was doomed to die because he had a certain kind of temperament (a temperament in which political matters were of great importance) plus the fact that he lived in a society where political discussions were common."

Deaths following bereavement occur as a result of every type of pathologic process. Certainly the important factors which influence the timing and manner of death vary from one instance to the next. In one individual, for example, death may be hastened not by grief itself but by the condition of widowhood, with its loss of income, moves, alterations in diet, and new responsibilities. Another bereaved individual may suffer from the effects of exposure to a common environment, and thus both may die from the same cause such as, for example, tuberculosis. The altered physiology of grief as evidenced by palpitations, sweating, dry mouth, etc., may, in some instances, place an additional strain upon the person and hasten his death. In cases of suicide following bereavement, we see instances of death in which the individual takes responsibility for ending his life. His motive may be a desire to rejoin his lost loved one. There can be no common explanation for the increased mortality following bereavement, and instances must be examined individually to be understood.

INTERVENTION

Being familiar with the course of normal grief and its possible complications, the physician has an opportunity to practice preventive medicine. The role of comforter to the dying and his family is a painful one which we have tended to avoid, much as the society of which we are a part has turned away from death. The physician's anxiety may cause him to see grief as falling outside of his domain, and as the proper concern only of clergymen, social workers, or others.

The first goal of the physician should be that of recognizing morbid or complicated grief reactions. In the majority of instances these may be predicted at the time of bereavement from an assessment of those factors which bear importantly on the outcome. Where a complicated outcome is anticipated, one or more of three forms of intervention should be considered: supportive psychotherapy, chemotherapy, or psychiatric referral.

Supportive psychotherapy is aimed at bolstering the patient's ego in an effort to help him reduce his distress by a process of "emotional sharing." The primary goal, of course, is one of achieving symptomatic relief. If successful, the patient's distress should be materially reduced in a number of weeks or a few months. If that has not occurred within six months, psychiatric referral may be necessary. The task of the bereaved is to resolve his relationship with the deceased and then to replace his loss through the establishment of new relationships, patterns of living, and investments in meaningful endeavors. Brief supportive psychotherapy might well involve a series of short but regularly scheduled interviews. The doctor's chief task would seem to be one of making his patient cognizant of those issues which are most troublesome to him in resolving his grief.

The first important measure is that of sup-

plying emotional support by meeting the patient's dependency needs during the period of acute stress and by supplying reassurance. One can reassure a patient who expresses a fear of losing his mind, a loss of confidence in himself and in his ability to reestablish a satisfactory life, and a sense of shame about his loss of self-control. A patient will feel reassured if he feels understood, if his suffering is accepted, and if his own understanding of what is happening to him is increased. Feelings of resentment toward the deceased and toward other individuals in his environment may be particularly anxiety-provoking for the mourning individual. These feelings, as well as those of affection toward the lost loved one, need to be given an opportunity for expression. There may be no one in the mourner's environment to whom he can express his true feelings and find them accepted non-judgmentally.

A second important measure is the supplying of intellectual support, and this consists of a reviewing of the patient's situation objectively and assisting his judgment, which may be temporarily impaired under the influence of grief. Many persons find themselves angry with God or fate, and resentful of those who were in attendance at the death of the loved one. Such resentment is often displaced from the deceased who deserted the grieving survivor. This needs to be recognized and accepted. At the same time, the patient may be assisted to viewing death as a natural occurrence and an inevitable part of life, so that he can gain a proper perspective on his total situation. Bereavement is a rare enough occurance, especially among young persons, so that the patient may have little acquaintance with the expected course of his distress and how he can best adapt himself to it. Written materials may aid the bereaved to understand aspects such as the purpose of a funeral and ways of explaining death to children. The Public Affairs Pamphlet dealing with the problems of bereavement is an example.[8] Direct advice, though it may be supportive initially, should be kept to a minimum later, for such advice often implies to the patient that he is incapable of making sound decisions by himself. As the distress becomes less intense, the physician can encourage his patient to acquire new friendships, interests and patterns of living.

Environmental manipulation is a third important aspect of supportive therapy, for the bereavement often forces a major disruption in the patient's pattern of living. He may need help in finding trustworthy legal, spiritual, and financial advisors. If the grieving individual finds himself in a grossly unsupporting environment, or if those about him are intolerant of his distress, a brief period of hospitalization may be valuable. Often family-service agencies are particularly aware of and equipped to give expert guidance with the problem of widowhood.

The tranquilizing, anti-depressant, and sedative medications are perhaps best thought of as adjuncts to psychotherapy. Of course, they provide symptomatic relief, rather than a cure. Usually one of the minor tranquilizers such as Librium or Valium, in a moderate dosage, is suitable for daytime administration. It is well to remember, however, that medications have psychological as well as pharmacologic effects. Often patients feel that they are a means by which the physician is rejecting him or avoiding further involvement in his troubles. Also, too often patients find in medication an unwelcome reminder of unacceptable dependency. To some, however, they may be tangible and objective evidence of the interest and curative powers of the physician.

CONCLUSION

Above all, our task is to assist the mourner to express his grief. Speaking through Macbeth, Shakespeare said, "Give sorrow words; the grief that does not speak whispers the o'er-fraught heart and bids it break."

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President's Page



I find that I approach the end of my term in office with mixed feelings of relief and nostalgia. It has been a stimulating, rewarding and at times, exhausting experience.

It has been my privilege to be associated with some of the finest colleagues in the world and I have established warm friendships that will endure a lifetime.

I have observed the working of an efficient and totally dedicated staff, from the executive vice-president to the newest secretary. I shall always be grateful to them for their assistance throughout the year.

To the dozens of Iowa physicians who have served so effectively upon important committees, I extend a sincere thanks. It is the sum of all these things that makes the Iowa Medical Society one of the strongest in the nation.

To my friend and colleague, President-Elect W. M. Krigsten, M.D., I extend my best wishes for what I know will be a very successful year.

C. W. Leibert, M.D.

President

Editorials

VERSATILITY

Take time to work—it is the price of success.

Take time to think—it is the source of power.

Take time to play—it is the secret of perpetual youth.

Take time to read—it is the fountain of wisdom.

Take time to be friendly—it is the road to happiness.

Take time to dream—it is hitching your wagon to a star.

Take time to love and be loved—it is the privilege of the gods.

Take time to look around—it is too short a day to be selfish.

Take time to laugh—it is the music of the soul.

The above lines were quoted by the president of the Woman's Auxiliary to the Philadelphia County Medical Society, in PHILADELPHIA MEDICINE for January 5, 1969. The origin of the quotation was not given.

A DIAGNOSTIC PROBLEM

A valuable lesson can be learned from a case report by Conant and Lane in a recent issue of CALIFORNIA MEDICINE.* Those two San Francisco physicians have written about a single, white male, 24 years of age, who presented with a four-month history of malaise, fatigue, headache, sore throat and a gradually increasing left cervical adenopathy. During this period he had intermittent low-grade fever, and for several days an erythematous rash had been present on his trunk. A small, elevated white plaque had been visible on the back of his tongue for the past two weeks. During his period of illness he was seen by three physicians, each of whom had independently diagnosed his malady as infectious mononucleosis. No blood tests had been done, and no drug therapy had been prescribed. The patient was then seen by a fourth physician, in the hospital emergency room. A blood count was done, and proved to be normal. The sedimentation rate was 20 mm. in one hour, and a heterophile antibody test was negative. A diagnosis of infectious mononucleosis and monilial stomatitis was made, but the patient was referred to the dermatology clinic and he was seen there a week later.

On his admission to the dermatology clinic, the patient had generalized lymphadenopathy and a palpable spleen, and a faint erythematous morbilliform rash was noted on his trunk. A hypertrophic, non-tender, white lesion was present on the back of his tongue. The vessels of the pharynx and soft palate were engorged, and the lymphoid tissue of the pharynx was somewhat hypertrophied. Laboratory studies revealed a VDRL reactive at 1:64; a dark field examination was positive for treponema pallidum from the tongue lesion and from three separate papulo-squamous lesions of the skin. The serum glutamic oxaloascetic transaminase was 48 Karmen units, the blood counts were normal, and the sedimentation rate was 12 mm.

* Conant, M. A., and Lane, B.: Secondary syphilis misdiagnosed as infectious mononucleosis. CALIFORNIA MED., **109**:462-464, (Dec.) 1968.

in one hour. Despite the clinical and laboratory findings, a primary lesion was denied.

The patient was treated with bicillin in accordance with the schedule recommended by the U. S. Public Health Service. Improvement was rapid, and all lesions had cleared completely in two weeks.

The authors point out that the clinical manifestations of secondary syphilis are the initial reactions of various body tissues to a systemic infection by the spirochete. It is thought that there is an invasion of all body tissues in the early stages of syphilis. The skin manifestations are protean. Mucous patches are common, but a papillomatous condyloma of the tongue such as was present in this case is extremely rare. Generalized lymphadenopathy is said to occur in 70 per cent of cases and is one of the commonest characteristics of the disease. Splenomegaly is common; hepatitis, with or without jaundice, may occasionally occur; but liver involvement is thought to be present more frequently than it is suspected clinically.

Constitutional symptoms are said to be present in at least half of the cases of secondary syphilis. A low-grade fever may be continuous or intermittent. Malaise, headache, anorexia, weight loss and sore throat are common complaints, and appear to be parts of the clinical picture. The sedimentation rate is elevated in most cases.

As Conant and Lane point out, the differential diagnosis of such non-specific constitutional symptoms includes a number of diseases including tuberculosis, brucellosis and infectious mononucleosis, as well as syphilis. In some cases of secondary syphilis, the only complaint may be fever of unknown origin. The combination of sore throat and headache should alert the clinician to the possibility of secondary syphilis. The combination of sore throat and lymphadenopathy in secondary syphilis must be kept in mind when infectious mononucleosis is suspected. The differential diagnosis of early syphilis with atypical manifestations may be extremely difficult.

The case reported by the California dermatologists is an example of the classical failure of four physicians to keep in mind the possibility of syphilis in the differential diagnosis of what they thought was a typical case of infectious mononucleosis, and a two-narrow concept of the indications for a serologic examination. The authors urge serologic tests in all cases of infectious-mononucleosis-like syndromes, hepatitis, pityriasis rosea or fever of unknown origin.

This case report brings to mind an unhappy episode in a small Midwestern community. An epidemic of secondary syphilis among high-school students was reported by a local physician. Consultants brought in by the Health Department found that the epidemic was one of pityriasis rosea, and the physician left town to seek a warmer and more receptive climate. The youngsters made uneventful recoveries, and the parents ultimately regained their composure.

THE PHYSICIAN AS HOSPITAL TRUSTEE

In a somewhat unusual editorial in the January issue of TEXAS MEDICINE, Mr. Charles M. Sanders, administrator of Memorial Medical Center, Corpus Christi, states: "I believe very strongly that physicians should be voting members of the hospital board of trustees."

He points out that the historic image of doctors and hospital management as being two separate entities is rapidly changing into one of realistic cooperation. Though the hospital's organized medical staff is properly self-governing, it is not a separate and distinct unit. The doctors and the hospital are interdependent, and they should not function as two separate organizations. They constitute a single care system which is responsible to the board of managers and to health-care consumers.

The Texas hospital administrator declares, "The importance of physician participation in hospital administration affairs cannot be overemphasized. We should seek out and tap the resources and talents available within the ranks of our organized medical staff."

It is because the hospital is a medical institu-

tion that it is now considered desirable and appropriate for physicians to become a part of the hospital's decision-making team. All too often, according to Mr. Sanders, trustees and administrators make important decisions without proper medical consultation, and in fact physicians are actually penalized on the basis of tradition rather than of valid reason, when they are not appointed to membership on a hospital board of trustees.

He goes on to say that the efforts of medical staff members, both collectively and individually, should carry great weight as the trustees seek solutions to the many serious problems that confront the modern hospital in its primary function of service to the patients, and also in its educational programs and even in the maintenance of its fiscal stability. He quotes the following from the HARVARD BUSINESS REVIEW for September-October, 1967: "The physician as the patient's 'purchasing agent' can do much to curtail the cost spiral in the matter of admissions, length of stay, use of diagnostic and therapeutic services, and selection of drugs."

Tradition—too long unquestioned—has imposed strict lines of demarcation separating the scopes of authority of the medical staff, the hospital administrator and the board of trustees, even though the primary purpose of each is to serve the patient. The medical staff should not try to run the hospital, or to dictate to the administrator or to the board of trustees. However the medical staff certainly is in a position to recognize problems and deficiencies, and to point them out to the men who operate the institution. One or more staff physicians on the board of trustees should strengthen lines of communication, and encourage harmony and cooperation between those concerned with the good of the institution and those whose almost only concern is for the welfare of the patients. It seems reasonable that the medical staff should be consulted concerning important decisions, and be permitted to present its points of view before the board of trustees.

The Code of Iowa does prohibit the election of physicians to the board of trustees of a county hospital, but there is no statute that forbids doctors' being on the board of a private hospital. The "Personals" in this issue of the JOURNAL contain items reporting the election of two Iowa physicians to the boards of non-county hospitals—one of them an urban and the other a small-town institution.

The propriety of electing physicians to hospital boards remains controversial, but there nevertheless is a need for physicians on hospital boards; the progressive modern hospital must acquire and maintain facilities and services which are Greek to a lay board member.

SHOCK CAUSED BY GRAM-NEGATIVE BACILLI

A considerable number of reports of nosocomial infections, acquired in the hospital, have appeared in the literature, and they consistently tell of a reduction in the frequency of staphylococcal cases and an increase in the incidence of ones caused by gram-negative bacilli. Accompanying the reports, in many instances, are case studies of patients with shock associated with bacteremia due to gram-negative organisms. The incidence and the seriousness of this syndrome calls for alertness on the part of the clinician, for their prompt recognition, and for an immediate initiation of therapy if the death of the patient is to be averted.

A recent review of shock associated with bacteremia due to gram-negative bacilli, by McHenry and VanOmmen, of the Cleveland Clinic Foundation, should be of great interest and value to all physicians.* According to these authors, bacteremia due to gram-negative bacilli now is exceeded only by hemorrhage and myocardial infarction as a cause of shock in hospitalized patients, and the mortality rate from this condition varies from 40 to 90 per cent. In the early stages the patient usually has fever, his skin is warm, his pulse is bounding, and hypotension is present. Later in the course the classic picture of shock with generalized vasoconstriction, may develop.

The organisms usually isolated are Escherichia coli, Klebsiella enterobacter, Pseudomo-

* McHenry, M. C., and Van Ommen, R. A.: Clinical emergencies due to bacterial infection. MINNESOTA MED., 51:1043-1047, (Aug.) 1968.

nas, Proteus and Bacteroides. The commonest sources of bacteremia are infections of the genitourinary tract, peritoneum, biliary tract, gastrointestinal tract, respiratory tract and skin.

In about one-half of the cases, bacteremic shock due to the gram-negative bacilli develops after a surgical or instrumental procedure on the genitourinary, gastrointestinal or biliary tract. The condition often develops in patients receiving intensive medical or surgical treatment for other serious diseases. The underlying disease states in which gram-negative bacteremia is likely to develop are obstruction of the urinary or biliary tract, malignant neoplasms, hematologic disorders, diabetes mellitus, cirrhosis of the liver, third-degree burns and complications of pregnancy. Infections at cut-down sites, from the use of intravenous polyethylene catheters and from the use of contaminated blood have been reported as sources of gram-negative bacteremia.

The Cleveland physicians emphasize the necessity for prompt recognition of the condition, and declare that successful management depends upon early eradication of the infection and restoration of adequate tissue perfusion. It is imperative to initiate antimicrobial therapy without delay, after the necessary specimens of blood, body fluids and exudates have been obtained for bacteriologic studies. Cultures taken from the urine or from the operative site, before the onset of bacteremia, may provide clues to the identity of the causative organism. Certain clinical conditions may suggest the particular organism. Pseudomonas may be suspected in the shock complicating third-degree burns or serious hematologic disorders, particularly if there is agranulocytosis and if the patient has received antibiotics, corticosteroids or chemotherapy.

The authors say that if there is no clue to the identity of the offending organism, but if one has reason to suspect bacteremic shock due to a gram-negative bacillus, many physicians institute combined therapy with kanamycin and chloramphenicol until the results of cultures are available. In 12 to 24 hours, if the response to this therapy is unsatisfactory, polymixin B or colistin is included in the therapeutic regime. If the clinical picture suggests Pseudomonas infection, some physicians prefer to administer polymixin B or colistin along with kanamycin until the results of cultures are known. The clinician must always keep in mind the toxic effects of the antibiotics, and must remember that their combined use may enhance that toxicity. The surgical drainage of abscesses or the relief of obstruction in the viscera must not be neglected.

They emphasize that restoration of adequate tissue perfusion and correction of the hemodynamic disturbance in patients with bacteremic shock must be individualized. In some patients the problem is one of peripheral vascular regulation; in others it is hypovolemia; and in still others it appears to be primarily cardiac. When hypovolemia seems to be a factor, as in peritonitis, third-degree burns and postoperative fluid losses, expansion of blood volume may improve the cardiac output and tissue perfusion. The central venous pressure may well be used as a guide to therapy, and blood-volume determinations may be helpful. Volume expansion may be continued as long as central venous pressure does not rise above 10 cm. H_2O, and evidence of cardiac failure does not appear. A rapid infusion of dextran may augment cardiac output and improve tissue perfusion if the central venous pressure is not elevated and if it is obvious that the shock is not due to volume depletion. The authors warn that when the central venous pressure is elevated or rises rapidly after infusion, fluid intake should be restricted and drugs designed to improve myocardial contractility should be administered.

The use of drugs in the management of bacteremic shock is controversial. The vasopressor agents are now less popular in the management of the various forms of shock. The authors state that they may be beneficial in some patients in shock who do not have hypovolemia and who show little evidence of reflex vasoconstriction. Isoproterenol has been of value in some patients with bacteremic shock who have not responded to expansion of blood volume and to the administration of vasopressors. The value of glucocorticoids and adrenergic blocking agents continues to be controversial.

McHenry and VanOmmen stress their belief that shock associated with bacteremia due to gram-negative bacilli is a clinical emergency which the clinician must be on the alert to recognize. There must be no delay in the provision of intensive care and adequate antibac-

terial therapy if death is to be prevented. They assert that the use of potentially toxic antimicrobial drugs may be warranted when they are known to be significantly more effective than alternative agents in combating the suspected pathogens.

THE PLACE OF MEDICINE IN OUR SOCIETY

It is pleasing, once again, to find the Doctor Out of Zebulun gracing the pages of the ARCHIVES OF INTERNAL MEDICINE. The provocative and philosophic pen of Dr. Earle P. Scarlett, of Calgary, has been silenced by illness, but now a great many readers are delighted at his return to the task of probing the heart of medicine, and hopefully to a complete recovery of his health.

Dr. Scarlett's "The Profession in Contemporary Society," in the January issue, should be required reading for every physician, and it should prompt thorough introspection as well as realistic objectivity.* In the introductory paragraph he states that "living as we do in a time of total crisis, it is imperative that occasionally we should consider some ideas which are of concern to all physicians." One of the ideas is the concept of the profession in contemporary society.

He first points out that "on every side, today, voices are being raised in alarm at the decline in status and influence of the professions, including the profession of medicine. The reality of the decline cannot be doubted. . . . The causes of this phenomenon are extremely complex, but the effects on a profession such as medicine, endeavoring to maintain traditional professional standards and disciplines and to discharge its vital role in society, are alarming."

Dr. Scarlett then shows an unusual insight into contemporary society, the attitudes and behavior patterns of which are an enigma to most thoughtful people. He expresses it in this manner: "The truth is that our tough-minded generation distrusts intangible things, and looks about for tangible matters on which it has come to rely for understanding the world. This skeptical temper questions the very existence of intangible things and doubts the reality of truth, justice and moral and artistic integrity. Such an attitude denies that we can know more than external facts. In such a view traditional morality becomes suspect, and ordinary decent behavior is not safe from the suspicion of passive conformity and hypocrisy. This has reduced much of life to 'the absurd,' and the medical way of life has fallen into this morass. In many quarters it is regarded as so much pretentious humbug and disguised commercialism. At times one wonders whether this mood, with its sublime ignorance of history, intensified by social unrest, violence and war, is not unravelling the tapestry of civilization."

He points out that the physician's role in society is being changed by explosive and rapid social and environmental forces. Such forces as population pressures and changing human values confront the profession, and they demand that medical knowledge and skills be placed at the service of governmental agencies. Additional forces are the numerous prepayment medical plans, specialization, and the development of hospital centers—all of which incidentally lower the status of the medical profession. According to Dr. Scarlett, "There has been the change from a deeply personalized profession retaining some vestiges of priesthood, to a rapidly developing symbiosis of art and science, with science tending to overshadow the art." Although the traditions of medicine may be irrelevant to the problems of today, they still provide wise counsel, a basic faith in the scheme of things and a life in keeping with one's belief of a reasonable place in a confused world. This, according to the good doctor, "dissipates the sense of futility in one's experience and replaces expediency as a virtue with a proper feeling of personal responsibility."

Dr. Scarlett reminds us that the current medical scene is a confused one, and is in a state of flux. He acknowledges that some of the criticism of the medical profession today is

* Scarlett, E. P.: The profession in contemporary society. ARCH. INT. MED., **123**:95-99, (Jan.) 1969.

justified, and he points an accusing finger at the five-day-week doctors, at the daylight-only practitioners, at arrogant specialism, and at rank commercialism.

He states that if medicine is to answer the challenge of the times successfully, it must combine the new economy with the old morality. Physicians must express what they feel is necessary to the integrity of the profession, rather than sit back and await the dictates of the planning authorities of a bureaucratic state. The medical profession must impose a discipline on itself, rather than accept one from without. "The physician's imperative is the assertion of the standards of medicine by example, moral force, and stern measures by our own organizations."

To Dr. Scarlett the fulfillment of the physician's imperative demands "respect for man, personal integrity, the virtue of work, the dignity of our profession, deep interest in the craft as high adventure, and an imaginative art—all crowned by Osler's more intimate prescribed qualities, the art of detachment, the virtue of method, the quality of thoroughness, and the grace of humility." He asserts that "these are the things which have given strength to our calling, and have made it one of the activities of the human spirit which have brought man out of the original darkness. . . . And so it is that the real Medicine stands for things of the spirit; it shares this mission with religion." He concludes with the words: "Medicine, under the grace of God, is one of the forces which have served to separate man from the brute. We must continue to practice this medicine and respect it through the darkness and uncertainties of today."

If there is any doubt about a shorter stature or an unhappy image of the medical profession in this country, a diatribe in the February 21 issue of TIME deserves your attention. It is now that individual physicians should assert themselves and demand the fulfillment of the imperative urged upon them by Dr. Scarlett.

Help your central office to maintain an accurate mailing list. Send your change of address promptly to the JOURNAL, 1001 Grand Avenue, West Des Moines, Iowa 50265.

Large Gift for Medical Library Building Fund

A gift of $55,500 from five investor-owned utilities was received in mid-March by the University of Iowa Foundation to help finance construction of the proposed Health Sciences Library of the U. of I. The donors are Iowa-Illinois Gas and Electric Co., Davenport; Iowa Southern Utilities Co., Centerville; Iowa Power and Light Co., Des Moines; Interstate Power Co., Dubuque; and Northern Natural Gas Co., Omaha.

That gift pushed the national fund-raising campaign over the million-dollar mark, according to Donovan F. Ward, M.D., of Dubuque, the drive chairman. The goal is $1.4 million, and no state tax funds will be used in the project, Dr. Ward said.

The library will be constructed on a wooded, sloping site directly north of the U. of I. General Hospital. The location and size of the library will allow consolidation of the basic collections of the health sciences colleges—dentistry, medicine, nursing and pharmacy.

Letters to the Editor

Sir:

I should like to call the attention of the readers of the JOURNAL to the facilities available for the study of sero-negative syphilis. It has become quite apparent that Treponema pallidum can be found in the aqueous humor, even in patients "adequately" treated for syphilis, and since the ocular and neurologic complications of lues are so severe and debilitating, it behooves us to avail ourselves of this service, especially since it will be provided without cost to the patient.

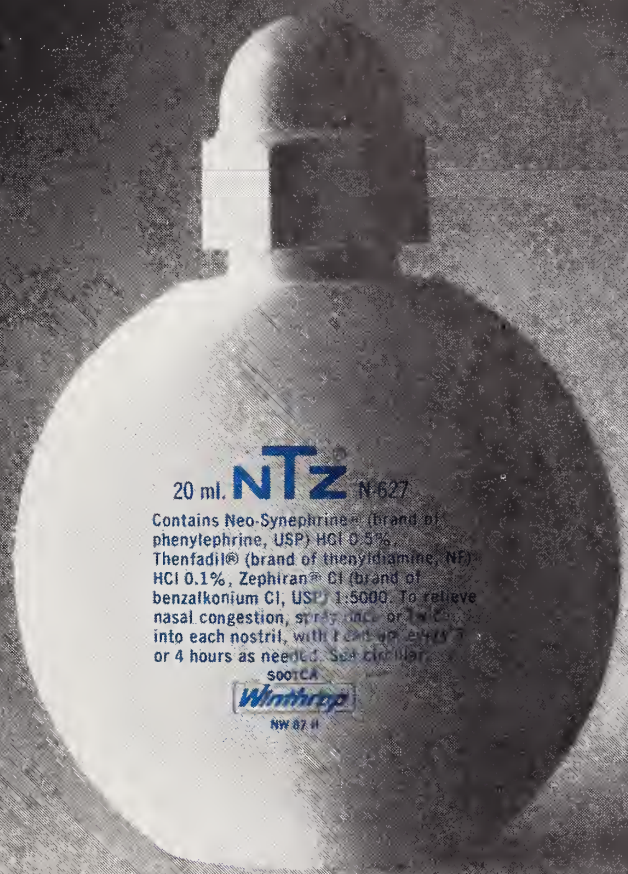
We at the Department of Ophthalmology, University Hospitals, have successfully been studying the aqueous humor of patients, looking for Treponema pallidum by means of the fluorescent antibody technique. We are interested in examining any patient with a history of syphilis or any patient in whom signs and symptoms of lues have been detected.

If a physician has such a patient whom he would like evaluated, we will perform a complete neuro-ophthalmologic examination and will examine the aqueous humor if it appears warranted.

Thank you for your assistance in placing this information into the hands of Iowa's physicians.

Very truly yours,
BRUCE GOLDEN, M.D.
Laboratory of Experimental
Microbiology and Immunology
Department of Ophthalmology
Iowa City, March 10, 1969

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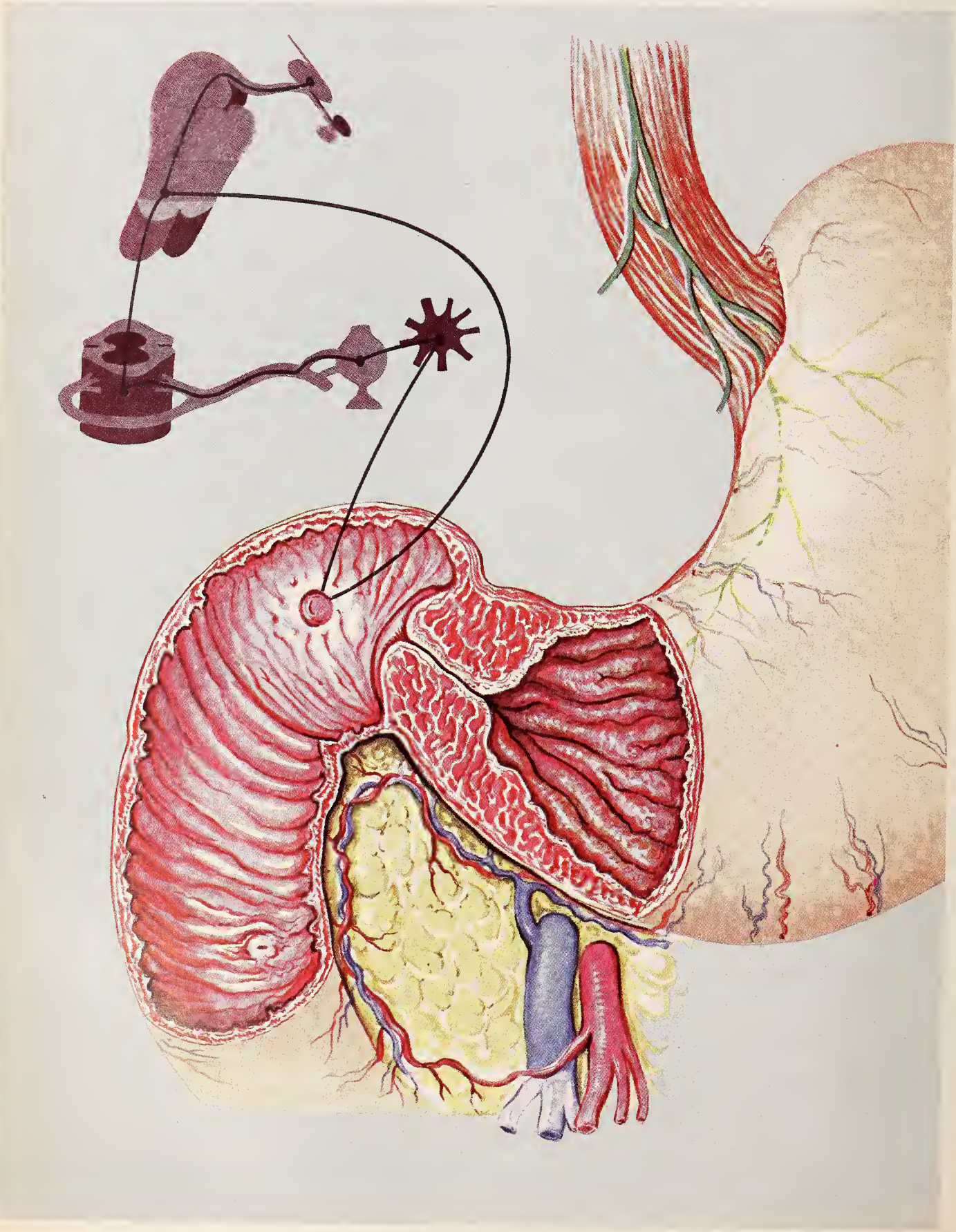
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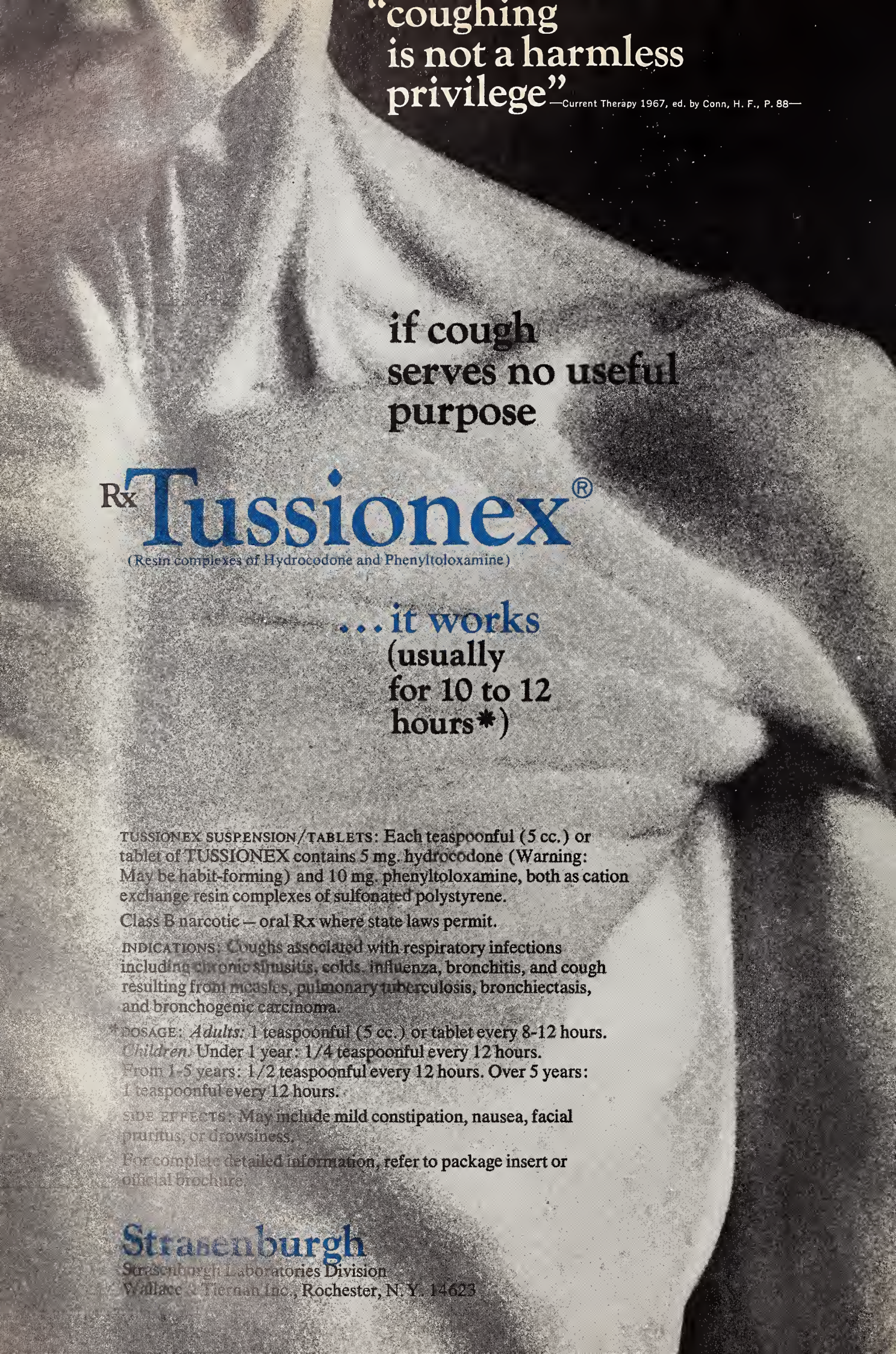
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THE JOURNAL *Book Shelf*



BOOK REVIEWS

SELECTED PAPERS ON DIRECT PSYCHOANALYSIS, VOLUME II, by *John N. Rosen,* M.D. (New York, Grune & Stratton, 1968. $6.50).

Twenty-five years ago Dr. John Rosen presented the first of a continuing series of articles and books elaborating new, exciting, challenging, controversial and, to some, shocking techniques of treatment for psychotic patients. It seemed in violation of almost all accepted "rules" for the conduct of psychoanalysis, and yet had its origin in the theoretical doctrine of rather orthodox Freudian psychology. If Dr. Rosen built upon the psychoanalytic concepts of personality dynamics, psychosexual development and mechanisms of defense, he struck out boldly in a new direction which he called *Direct Psychoanalysis.* Since its first enunciation, it has attracted a growing number of practitioners and an even larger number of critics, yet it must be said that certainly in his hands this technique has produced some startling changes in many psychotic patients for whom little hope was held. And certainly in the absence of predictively effective therapeutic techniques, anyone concerned with the treatment of the most nearly hopeless of the mentally ill cannot afford to be unfamiliar with the theory and practice of *Direct Psychoanalysis.*

The present volume consists of seven papers, four of which are primarily concerned with Direct Psychoanalysis. The remaining three papers are addressed to special, though relevant subjects. They deal with what Dr. Rosen calls "Early Maternal Environment," "Acting Out and Acting In," and, "Psychotic Creativity." In addition, there are critical discussions of two papers by colleagues of his. An extensive bibliography provides the reader with a comprehensive list of references. Unfortunately, because this is a collection of papers rather than a monograph, it does not present the reader with a structured elaboration of the subject. The papers tend to be repetitive and argumentative, and they reflect some of the author's irritation with his critics.

Dr. Rosen does present a number of distinct and basic concepts which must be given consideration not only for their theoretical interest, but for very practical reasons. If through the application of his technique it is possible to treat psychotic and neurotic patients not only with reasonable success, but in relatively short time, then indeed he has made a noteworthy contribution.

Central to his theory is the belief that the functional psychoses do not represent diseases, in the strict medical sense, but phases or modes of faulty adjustment, which shift in time and degree and are responsive to active intervention by a therapist who is willing and able to provide what the patient needs. Dr. Rosen believes that the core problem of all psychotic states resides in the quality of the experiences of the child prior to the so-called Oedipal conflict. That "pregenital" period has provided an environment which is forever centered upon the mother, and all its contents are associated with her. It is this which prepared the child—well or poorly—for the stresses of his later years. In reaction to stresses which resonate with those of his earliest years, his acquired defenses break down and his psychotic patterns emerge. Dr. Rosen sees these pathologic reactions, despite their bizarre and frightening aspects, as having meaning and purpose, as being subject to interpretation and, through such interpretation to the patient, as susceptible of being changed. The therapist, however, must be more than a mere interpreter. He must be able to "be" the good mother for whom the patient searches and, via the patient's transference, to become incorporated into the patient's personality. The therapist not only analyzes the patient's behavior, but directly takes over the patient's life with the goal of enabling the patient to grow and mature, and eventually, like any child, to achieve a capacity for independent and stable adjustment.

Whereas orthodox psychoanalysis tended to see its usefulness as largely restricted to the treatment of the psychoneuroses, Dr. Rosen clearly sees the applicability of his technique to both the psychoses and psychoneuroses. He bases this upon his belief that they are but differing manifestations of the same general problem, and, upon his belief that Freudian psychoanalysis does not work because it fails to progress beyond the rather rigid and dogmatic doctrines which govern it. Those who have seen Dr. Rosen in action cannot fail to be impressed. He does affect patients, and he does so without drugs or other physico-chemical aids. Whatever shortcomings his theory and practice may have, his successes challenge us and deserve respectful consideration. For those who as yet are unfamiliar with his ideas, this book can be recommended.—*Sidney L. Sands,* M.D.

SURGERY FOR CEREBROVASCULAR INSUFFICIENCY (STROKE): WITH SPECIAL EMPHASIS ON CAROTID ENDARTERECTOMY, by *Jesse E. Thompson,* M.D. (Springfield, Illinois, Charles C Thomas, Publisher, 1968. $9.50).

This compact monograph expresses the opinions of the author, based on 595 operations for carotid endarterectomy on 466 patients over an eleven-year period.

The 96-page volume, printed to make reading easy and with good illustrations, should have wide appeal. The historical review chapter says that the first reported carotid endarterectomy was performed by three Argentinian surgeons in 1953. Under "Basic Considerations," the total-flow concept of cerebral circulation is discussed. Under "Diagnosis," the medical-team ap-

proach is outlined. All of the patients in this series received neurological evaluations, so that it was not simply a matter of operating on an angiographically demonstrable lesion in a cervical carotid artery.

The book is timely, it reviews a large clinical experience in detail, and it accurately reflects current thinking in the area of "Stroke."—*John T. Bakody*, M.D.

THE OPHTHALMIC ASSISTANT, by *Harold A. Stein*, M.D., and *Bernard J. Slatt*, M.D. (St. Louis, C. V. Mosby Company, 1968. $19.50).

This is a very timely book, coming when efforts are being made to relieve the physician of the routine procedures which can be delegated to people with lesser training. Doctors Stein and Slatt are Canadians.

This is very well written, and well illustrated. The reading is easy and makes an excellent text; it is an equally good reference book. It explains things in a manner that the reader should comprehend with a minimum of scientific background. It covers all aspects of subjects that would be encountered by the ophthalmic assistant, and it is the only book of its kind with which the reviewer is acquainted that serves such a purpose. Any ophthalmic assistant who had a practical acquaintance with the material in this book would be a very valuable assistant, indeed.

Every ophthalmologist having ophthalmic assistants will want a copy of this book.—*Otis D. Wolfe*, M.D.

DOES EVERYBODY NEED AN ANALYST?, by *William Stone*, M.D. (New York, Pageant Press, Inc., 1968. $3.50).

This book of 131 pages tells nothing at all about acute appendicitis or the repair of an inguinal hernia, and very little about whether everybody needs an analyst. However, it does discuss the variations of mental status—neurotic, psychotic, socio-pathic, etc.—in terms of security. But even more specifically, it presents a convenient system and a scale modelled after Wechsler's IQ scale of 0-200—for grading an individual's level of security. On this scale, zero represents the absence of security, and 200 represents perfect or total security. The advantage of such a numbering system, as the author explains, is that it permits comparisons between one individual and another, or between the behavior patterns of the same individual on different occasions.

Would you care to achieve total security—have a score of 200? Well, according to the book, there are four routes to this elusive state: love (the *non*-platonic variety), drugs, psychotherapy, and religion. Take your pick. The hippies have. But remember this: When you get there, you are divorced from reality and are no longer the master of your fate.

Dr. Stone is a psychiatrist at the Mental Health Institute in Independence, Iowa. He has written down his ideas about the levels of security because he believes them to be "clear, simple, and understandable . . . useful to other people." In the Foreword, he states that the book will help the reader understand his own pattern of behavior and will help him decide for himself whether he needs a psychiatrist. That, in truth, is what makes books like this so interesting, for everybody, unless he's a nut or mighty secure (or both), would like to know whether he's crazy or not —or, more accurately, would like to know for sure that he's *not*.

To this amateur psychiatrist and reviewer, the ideas expressed by Dr. Stone are, as he alleges, clear, simple, and understandable. But useful? Only a pro can say. The cart would appear, however, to be before the horse: A score is of value when it is a step—a bit of evidence used to arrive at a conclusion. In security grading, on the other hand, because there is no specific test or yardstick available for determining a score, the converse is true: the conclusion precedes the score. That, at any rate, is what it looks like from here.

I recommend that you take a run at the book yourself. See what you think.—*Daniel F. Crowley*, M.D.

BOOKS RECEIVED

WATER AND ELECTROLYTE METABOLISM AND ACID-BASE BALANCE, by *Edward Muntwyler*, Ph.D. (St. Louis, C. V. Mosby Company, 1968, $5.85).

RENAL DISEASE IN CHILDHOOD, by *John A. James*, M.B. (Edin.), M.R.C.P., D.C.H. (St. Louis, C. V. Mosby Company, 1968, $18.50).

FUNCTIONAL PATHOLOGY OF THE CERVICAL SPINE, by *L. Penning*. (Baltimore, Williams & Wilkins, 1968, $13.75).

PICTORIAL MANUAL OF NEUROLOGIC TESTS, by *Maurice W. Van Allen*, M.D. (Chicago, Year Book Medical Publishers, Inc., 1969, $7.95).

WHAT YOU CAN DO ABOUT CANCER, by *Joseph C. Maroom*, M.D. (Garden City, New York, Doubleday & Co., Inc., 1969, $5.95).

SIMPLIFIED DIET MANUAL, THIRD EDITION, prepared by Nutrition Service of Iowa State Department of Health, in cooperation with the Iowa Dietetic Association. (Ames, Iowa, Iowa State University Press, 1969, $3.50).

STRUCTURAL AND DYNAMIC BASES OF HAND SURGERY, by *Eduardo Zancolli*, M.D. (Philadelphia, J. B. Lippincott Company, 1968, $18.00).

CLINICAL DIAGNOSIS BY LABORATORY METHODS, 14TH EDITION, ed. by *Israel Davidsohn*, M.D., and *John Bernard Henry*, M.D. (Philadelphia, W. B. Saunders Company, 1969, $24.00).

CURRENT THERAPY, ed. by *Howard F. Conn*, M.D. (Philadelphia, W. B. Saunders Company, 1969, $15.00).

PROGRESS IN NEUROLOGY AND PSYCHIATRY, VOLUME XXIII, ed. by *E. A. Spiegel*, M.D. (New York, Grune & Stratton, Inc., 1968, $26.50).

CERVICAL SPONDYLOSIS AND ITS NEUROLOGICAL COMPLICATIONS, by *Bernard H. Smith*, M.D. (Springfield, Illinois, Charles C Thomas, Publisher, 1968, $12.00).

DRUG DEPENDENCE, A GUIDE FOR PHYSICIANS. (Chicago, American Medical Association, 1969, $1.00).

Prescribed for you—

1969

Iowa Medical Society

Annual Meeting

April 27-30

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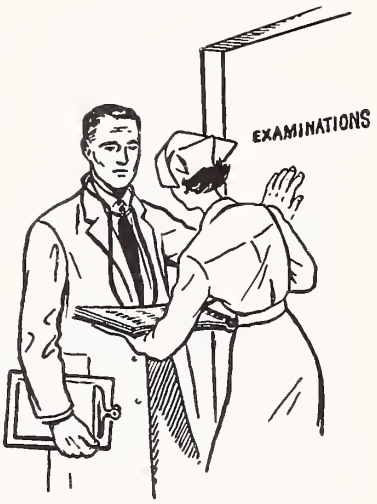
1969 ANNUAL MEETING IOWA MEDICAL SOCIETY

- *Monday, April 28: Imaginative Approaches to the Delivery of Medical Services to the Rural Community*
- *Tuesday, April 29: Adult-Adolescent Hang-Ups*
- *Tuesday, April 29: Abigail Van Buren— "Dear Abby" of the Newspapers Annual Banquet Speaker*

— APRIL 27 to 30 — DES MOINES, IOWA

—MARK YOUR CALENDAR • PLAN TO ATTEND—

THE DOCTOR'S BUSINESS



Office Staffing

LARRY E. LEAVERTON
Des Moines

Along with seeing more patients, physicians are employing more personnel. In excess of one-half of all solo practitioners employ two or more assistants. Most partnerships and group practices now average about two employees per doctor. With the delegation of other duties in the future, even more employees will be necessary.

In addition to the increase in the number of employees, there is an excessive turnover in many offices. It may be due to improper selection, the general mobility of our population, dissatisfaction, or poor personnel policies. Some employees are hired in desperation, and should not have been hired in the first place. Other causes of rapid turnover may be low pay, poor working conditions, irregular hours, or frictions within the office. Retirements by reason of age or a change in family status are uncontrollable. Excessive turnover is expensive in loss of time spent interviewing, selecting, indoctrinating and training, and in loss of efficiency in the interim.

We are frequently asked whether there is a shortage of good medical-office personnel, along with the much-discussed shortage of physicians. We are also asked for sources of qualified assistants, and for aids in selecting them.

A number of ways are available for recruiting office personnel. Word-of-mouth through your colleagues and present employees, private employment agencies, the Iowa State Employment Service, schools, the Iowa Association of Medical Assistants and the advertising columns of newspapers are some of them. Also some of the Area Community Colleges in Iowa are now training medical assistants.

Before the interviewing and selecting begins, define the job that you are attempting to fill, and list the qualifications that the successful applicant must have. Job descriptions and specifications are common in industry and other businesses, but many physicians fail to indicate or even to decide upon the precise type of person they want. For example, a different type of person is required for reception and telephone work than for bookkeeping and billing.

How are you as a boss—strong-willed or weak? Perhaps you should look for traits that complement rather than match yours. The days of hiring an average or below-average person, at $50 per week, to pick up the phone when it rings and to log the patients when they come in, have gone the way of the $3 office call and the "Doctor Is In" sign. In upgrading your personnel, you should look for the individual who has the ability or the potential ability to handle people in person and on the phone. The ingredients of that ability are maturity (Some people are mature at age 20 and others are not at age 50), clerical speed and accuracy if the employee is to be in your business office, and the necessary technical skills if she will be assisting you in your examining room and laboratory.

If you are writing copy for a newspaper ad or listing your needs with an agency, spell out as many of the details and requirements as possible. If certain skills are essential, say so. If you are willing to train the girl whom you hire, this should be mentioned. Have a good application blank for candidates to complete before you interview them. It should contain questions about the applicant's general history, educational background, personal interests, economic status, special skills, previous jobs, and references. Investigate any gaps in the girl's employment record.

Use the phone in seeking evaluations from her references. "Work" references are better sources than "personal" references. The applicant's minister or former school teacher seldom will say anything derogatory, and if there is anything uncomplimentary to be said, it is much more likely to reach you by word of mouth or tone of voice than in black and white. When you check previous employers, ask for the specific type and quality of work the applicant handled, about her punctuality and stability, about any health, moral or character problems, and about her reason for leaving her previous position.

Mr. Leaverton has been associated with Professional Management Midwest since 1949. He is a partner in the firm, and is director of its Research and Development Department.

There is no "ideal" age bracket for employees in a medical office. Don't overlook the bright young girl with no experience but with a good potential and a likelihood of working well under supervision. Nor should you pass up a mature, stable older applicant. Her husband is less subject to transfer, her children are grown, and she may be working merely from choice or to supplement the family income.

The indoctrination period for a new employee is just as important as the selection. Be certain she knows her duties and responsibilities. It is helpful for her to have an outline or list of routines that she can refer to when necessary. Patience and understanding are essential during this period. She can't be expected to learn all of the office details and procedures during her first day, or even her first few weeks. Some new employees are deluged with details, become afraid they can't fulfill the demands that will be made of them, and leave within the first week or first month. A story is told of an old grandfather clock. For many years it was perfectly reliable—always on time. But one day it thought: "Let's see. In one minute I tick 60 times, and in one hour 60 times that many, or 3,600. In one day the number becomes 86,400 times; in a week it's 604,800; and in one month it's millions. My goodness, I can't tick that many times!" And the old clock stopped.

Most everyone is in agreement that the physician must delegate more and more of his duties and responsibilities in order that he may work more efficiently and more productively. He can do this successfully only if he has employees who are ready and able to carry out the duties that he assigns them. This type of employee is in demand not only in the health field but in all other fields as well. The health field is one of the most dynamic and challenging of them all, and it should be most attractive to the brightest people. But many of them are not aware of the specialized nature of the duties they will be performing, of the variety of tasks and of the satisfactions to be derived from benefiting others, and of the training they will receive as employees in a medical office. Proper recruiting, wise selection, careful indoctrination and training, and maintenance of good working conditions will help you get and keep the best assistants.

Annual Meeting

Telephone Service

During the meeting, physicians can be reached at the Fort Des Moines Hotel through the following telephone:

Des Moines 243-1161

Extension No. 409

Conference for Spray-Plane Pilots In Iowa City

An agricultural-pilot safety clinic, especially designed for flyers who crop dust with pest control chemicals, was held at The University of Iowa Memorial Union Friday and Saturday, March 28-29. Pilots from eight Midwestern states attended the clinic, held under the auspices of the U. of I. Institute of Agricultural Medicine in cooperation with the Federal Aviation Administration (FAA).

As part of its "Iowa Community Study on Pesticides" research program, which is studying the long-range effects of pesticides on man's health, the Toxicology Section has assisted the FAA in investigating spray-plane accidents in Iowa and several surrounding states. Spray-plane accidents in the nation have ranged from 300 to 400 annually for several years, and Institute researchers are trying to find out whether a relationship exists between the crashes and pilots' exposure to the pesticides they use.

In six spray-plane crashes—two in North Dakota and one each in Iowa, Minnesota, Wisconsin, and Missouri—which were investigated by the Institute last summer, pilot exposure to pesticides was not directly implicated, according to Keith R. Long, Ph.D., chief of the Institute's toxicology section. Most of the crashes investigated in the past two years have been attributed to pilot error or mechanical failure of the aircraft. "One can only speculate on the secondary effect of judgment-impairment induced by long association with pesticides by the pilots," he concluded.

The topics and speakers were "Characteristics of Agricultural Aircraft Crashes," by Lt. Col. William Berner of the Army Medical Corps' Human Factors Branch, Fort Rucker, Ala.; "Behavioral Toxicity of Agricultural Chemicals," by Dr. Long; "Special Aerial Spray-Flight Operations," by Lt. Col. Clyde R. Van Horn of the Air Force's Tactical Air Command Headquarters, Langley Air Force Base, Virginia; "Application Skills and Agricultural Aircraft Operation," by Kenneth Warner of the General Aviation District Office 4, Des Moines; and "FAA Regulations and Legal Aspects of Agricultural Aircraft Operation," by James L. Basgall of the U. S. Department of Transportation regional office in Kansas City; "Crash Worthiness of Agricultural Aircraft," by Lester Severance, of the General Aviation District Office 7, Fargo; "Pesticide Exposure and Personal Safety," by Dr. Long; "New Developments in Agricultural Chemicals," by Dr. Harold Gunderson, Iowa State University, Ames; and "Delethalization of Aircraft Accidents" and "Shoulder Harness and Helmets," by John J. Swearingen, chief of the protection and survival laboratory of the Civil Aeromedical Institute, Oklahoma City.

1969 Refresher Course in Iowa City

Opening with a discussion on "Shoulder Dystocia" and closing with an afternoon of talks on "Problems Which Arise During the Preschool Medical Checkup," some 70 topics were presented by 79 faculty members of the College of Medicine at the four-day postgraduate conference for general practitioners in February. A total of 232 physicians registered for the conference, held this year for the first time at Iowa Memorial Union. General sessions each day were devoted to obstetrics and gynecology, surgery, internal medicine, and pediatrics. Special group sessions considered advances in anesthesia, dermatology, neurology, ophthalmology, orthopedics, otolaryngology, psychiatry, and urology.

In one of the opening talks, Dr. William C. Keettel, professor and head of obstetrics and gynecology, noted that the future of maternity care will depend upon scientific advances in the field, but that the time lag between the development of these advances and their use by the practitioner must be shortened if progress is to be made. He pointed out that the Pap smear had been around for 25 years, yet less than 50 per cent of the women in Iowa have been screened.

Dr. Keettel said Iowa physicians and institutions can be proud of their record in maternity care, but that increasing hospital costs and professional manpower shortages in the future may bring changes to the current pattern of maternity care. He said a study he made of obstetrical units in Iowa hospitals emphasized that it is extremely difficult to provide complete and adequate maternity service in a hospital delivering fewer than 500 patients. To maintain quality care, there should be fewer but larger maternity units located in population centers of the state, he said.

More than 77 per cent of the deliveries in Iowa were done by general practitioners or by generalists with a special interest in obstetrics in 1966, he said, noting that only 22.3 per cent of the deliveries were done by board certified obstetricians. While nearly half of the generalists do less than 25 deliveries per year, three-fourths of the specialists do more than 100 deliveries per year. Fewer than 25 per cent of the specialists were over 50 years of age, but 40 per cent of the generalists and 57 per cent of those with a special interest in obstetrics were over 50. As a physician gets older, he tends to give up obstetrical practice, and for Iowa this means that more specialists or generalists interested in obstetrics will have to be attracted to the state as these physicians retire, Dr. Keettel said.

Describing therapy for pulmonary emphysema, Dr. George N. Bedell said patients should be urged to stop smoking and to be as active as their lungs will permit. They should have regular exercise, especially walking, he said, noting that telling these patients to "take it easy" could be bad advice. Prompt treatment should be given when there is any indication of infection. Dr. Bedell said he has often instructed patients on the symptoms of approaching infection and then given them antibiotics to keep at home in the event they cannot get to a physician at the earliest sign of infection.

Dr. Ronald Lauer, professor of pediatrics, outlined the urgency of a definitive cardiac diagnosis during infancy. He noted that seven of every 1,000 live births, about 400 annually in Iowa, are infants with congenital heart disease. Of these seven, he said, about two will die in the immediate neonatal period. Eighty per cent of these infants have surgically remediable lesions. Thirty per cent of the infants who die have surgically correctable lesions and many of them can be operated upon in the first days or weeks of life, he said. If surgery is successful, most of these infants can live a normal life span.

Infants with congenital heart problems can be recognized by 1) dyspnea (respiration rate above 50 per minute, 2) persistent central cyanosis, 3) stridor or choking spells, 4) ventricular rate over 200 per minute and lasting several hours, 5) cerebral anoxia, manifested by paroxysmal dyspnea, convulsions and hemiplegia, 6) marked cardiac enlargement and 7) cardiac failure. Dr. Lauer noted that heart murmur does not appear in the list because many infants at high risk do not have a murmur. Signs of cardiac failure, he noted, include rapid respiration, enlargement of the heart, a large liver, gallop rhythm (most often difficult to detect), rales in the lungs (rare, and usually a late manifestation), and pitting edema (a late and often an ominous manifestation).

The Journal Visits a GP Meeting

The photographer didn't get us identifications of the doctors shown in these pictures, and the reader is invited to check our accuracy. We think that in the upper left view on the first page Dr. R. C. McIllece, of Fort Madison, is shown talking to Dr. C. P. Hawkins, of Clarion. The middle picture on the left shows the group listening to a lecture. At the bottom on the left, Dr. M. G. Bourne, of Algona, (right) is shown talking to a representative of the management at U. of I. Memorial Union. The top picture at the right, on page 1, shows Dr. R. E. Griffin, of Sheldon, (center). The middle picture on the right shows Dr. C. R. Sokol, of State Center, visiting with Dr. W. E. Jones, of Sturgis, South Dakota, who we understand never misses one of these GP Refresher Courses at Iowa City. At the bottom on the right, Dr. H. E. Rudersdorf, of Sioux City, (left) and Dr. W. A. Seidler, Jr., of Jamaica, (right) conversed with one of the guest speakers, George LaMore, Ph.D., of Iowa Wesleyan College, Mt. Pleasant.

At the upper left on page 2 is a picture of Dr. D. F. Koob, of Algona, and Dr. J. L. Bailey of Anamosa. In the center-left picture, Dr. John Hubiak, of Odebolt, Dr. F. L. Nelson, of Ottumwa, and another physician are shown questioning one of the exhibitors at the Nutrition Center display. The picture at the lower left, we think, is of Dr. D. L. Trefz and Dr. E. E. Schmiedel, both of Charles City. At the upper right, arriving at the registration desk together, were Dr. R. C. Larson, of Des Moines, and Dr. E. E. Lauvstad, of Osceola. The center picture on the right shows Dr. G. A. Flynn, of Davenport, visiting with Dr. W. C. Keettel, head of obstetrics and gynecology at the U. of I. The picture at the lower right shows a part of the head table at the banquet. Those pictured are, from left to right, Mr. John McKeown, president of the junior class at U. of I. College of Medicine, Mrs. W. A. Seidler, Jr., of Jamaica, Dr. Seidler, currently president-elect of the Iowa Chapter of the American Academy of General Practice, Mrs. George LaMore and Dr. Rudersdorf, president of the Iowa Chapter of the American Academy of General Practice.

























MEDICAL ETHICS

Transfer of Information About a Patient From Doctor to Doctor

Because there seem to be widespread differences of opinion among physicians about the ethics and proper procedures in the transfer of information, from doctor to doctor, regarding the care that has been provided to a particular patient, the Judicial Council of the Iowa Medical Society has asked that a summary of a series of incidents which occurred in this state within the past few months be recounted in the JOURNAL, without naming names, and that relevant passages be quoted from the AMA JUDICIAL COUNCIL OPINIONS AND REPORTS, 1966. (There is a no more recent edition.)

A doctor wrote to a group of physicians in a nearby town, requesting the medical records of a family that had moved from that community to his. A lay employee of the group then wrote to a member of the family in question, saying that the doctor's request would be complied with provided that the family's overdue account at his group's offices were first paid in full. Next, the requesting physician referred the matter to the IMS, and the councilor for the district where the group is located interceded. Subsequently, one of the members of the group of doctors wrote to the requesting physician (1) pointing out that the request had been too general—that care had been furnished to several members of the family by various ones of his colleagues, and that the request had been contained in a mimeographed form letter; (2) expressing displeasure that the family had sought further medical service without first settling its earlier bill, and that the requesting physician had brought the IMS into the matter; and (3) promising to answer specific questions about care rendered particular members of the family.

The applicable passages in the AMA JUDICIAL COUNCIL OPINIONS AND REPORTS, 1966 are on pages 57 and 58 of that booklet.*

The conclusions of the Judicial Council of the Iowa Medical Society regarding the case at hand were as follows:

1. Though the councilors had not seen the requesting doctor's initial letter to the group of physicians, it seemed to them probable that he should have been more specific than he was about the family member he was treating, and about the pieces of information which he needed to have. If he had been sufficiently definite, there can be no doubt that his questions should have been answered.

2. One of the councilors objected that the request for information should have been made by a member of the family, rather than by the family's new physician. The first paragraph quoted in the footnote (#3), taken by itself, seems to say so, but since a patient cannot be expected to ask clearly for the precise information that the new physician needs, and since the information must go directly to the new physician rather than to the patient, the patient's consent to the transfer of information is all that is required. There seemed no doubt in this instance that the family raised no objection.

* The relevant passages are as follows:

3. **Records of Patients and Succeeding Physicians.** At the request of the patient, preferably in writing, reports should be immediately sent to the doctor then in charge of the patient. The diagnosis of the patient's ailment is paramount in arriving at the proper treatment to be rendered, and all information which aids the physician should be furnished so that proper treatment or advice can be given without delay. Whether the contents of the report are to be given to the patient rests with the decision of the doctor who knows all the circumstances involved in the situation. *(House of Delegates,* 1946)

4. **Copy of Physician's Record to Patient.** The Judicial Council does not believe that Chapter II, Section 3 (1955 edition of the Principles) intends or requires that a physician give a copy of his records to his patient. These records are primarily the physician's own notes compiled during the course of diagnosis and treatment so that he may review and study the course of the illness and his treatment. The records are medical and technical, personal and often informal. Standing alone they are meaningless to the patient but of value to the physician and perhaps to a succeeding physician. The patient, however, or one responsible for him, is entitled to know the nature of the illness and the general course or regimen of therapy employed by his physician. The extent to which the physician must advise his patient may be limited by the nature of the illness and the character of the patient. The physician in advising his patient must always act as he would wish to be treated were he in a like situation. *(Judicial Council,* 1956)

5. **Copy of Patient's Record to Another Physician.** The interest of the patient is paramount in the practice of medicine, and everything that can reasonably and lawfully be done to serve that interest must be done by all physicians who have served or are serving the patient. When a colleague who is presently treating a patient requests records from another physician who has formerly treated the patient, that former physician should promptly make his records available to the attending physician.

No set rule can be laid down to cover the manner in which the records are to be transmitted to the attending physician. Under some conditions a personal inspection of the records might suffice; under others an oral report of what is contained in the records would be of help; or in other circumstances a summary of the records might be made. In extreme cases, a physician might lend his complete record to the attending physician. The manner of making the report—or the information contained therein—available to the succeeding physician is immaterial and will depend on the circumstances of each case. Certainly, however, the attending physician should not demand or expect more information from the former physician than is necessary to give the patient adequate care in the present illness.

The Judicial Council assumes, of course, that proper authorization for the use of these records has been granted by the patient. *(Judicial Council,* 1956)

3. The serious error, in this chain of events, was made by the lay employee of the group of doctors. The councilors were entirely agreed that it was unethical for a group of physicians—or for a layman acting on their behalf and as their agent—to declare that essential medical information would not be made available to the requesting physician until the patients' bill for previous services was paid.

THE AMA JUDICIAL COUNCIL OPINIONS AND REPORTS, 1966 contains no passage bearing directly upon the action that the group's credit manager threatened in this instance. The following, however, can be found in the second paragraph on page 45 of the booklet: "It is not in the best interest of the public or the profession to charge a penalty if fees for professional services are not paid within a prescribed period of time . . .," and though it is clear that a monetary penalty is thus condemned, there can be no doubt that any interference with the efficient rendering of further medical services to the patient(s) concerned must be regarded as even more reprehensible.

American College of Emergency Physicians

G. W. Marmé, M.D., of DeWitt, has called the JOURNAL'S attention to the formation, at the Palmer House, in Chicago, on February 7 and 8, of an American College of Emergency Physicians. The program for that organizational meeting stated the following purposes of the new group:

- To advance the ethical standards of the private practice of emergency medicine and surgery.
- To encourage and implement the training and continuing education of emergency physicians.
- To improve emergency services rendered to the patient.
- To promote patient education emphasizing the ethical standards and principles of private practice.
- To preserve the right of the emergency physician to engage in medical and surgical procedures for which he is qualified by training and experience.
- To study and to analyze the socio-economic aspects of the private practice of emergency medicine and surgery.
- To promote policy which preserves the integrity of private practice.
- To promote coordination of community emergency care facilities and personnel.

Speakers at the meeting outlined the emergency-physician residency program at the University of Cincinnati Medical Center; the concepts developed by the Emergency Services Branch, Direct Health Services Division, USPHS; the AMA's concept of emergency service; the role of the National Academy of Sciences in emergency-care services; and the role of the American College of Surgeons in emergency care services.

The address of the new organization is 120 West Saginaw, Lansing, Michigan 48823.

AMA's 1969 Annual Convention In New York City

New York City will be the site of the American Medical Association's 118th Annual Convention, July 13 through 17.

The nation's largest city has been host to two AMA annual conventions in this decade—in 1961 and 1965—and attendance at each exceeded 60,000.

A total registration of 60,000 is predicted for the 1969 convention, including some 22,500 physicians. Medical students, nurses and other members of allied medical professions, industrial exhibitors, and guests make up the rest of the registrants.

Four general scientific sessions are planned:

- Human Sexuality
- Physical Fitness and Aging
- Impact of Medical Education on Patient Care
- Chronic Pulmonary Insufficiency and Air Pollution Problems

Each of 22 scientific sections also will present a program. The 23rd section—on special topics—plans six sessions:

- Drug Utilization (in cooperation with AMA's Council on Drugs)
- Mental Health Dynamics in the Pre-School Child (in cooperation with AMA's Council on Mental Health)
- Disaster Planning for Aviation Accidents (in cooperation with AMA's Committee on Disaster Medical Care)
- Neurological Surgery
- Nuclear Medicine
- Plastic and Maxillofacial Surgery

The May 26 issue of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION will list the entire scientific program.


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Arlidin decreases cerebral vascular resistance, increases cardiac output, helps maintain mean arterial pressure.

Arlidin helps control vasoconstriction, vasospasm, and ischemia.

Arlidin may thus relieve symptoms of cerebrovascular insufficiency, such as vertigo, lightheadedness, and mental confusion.

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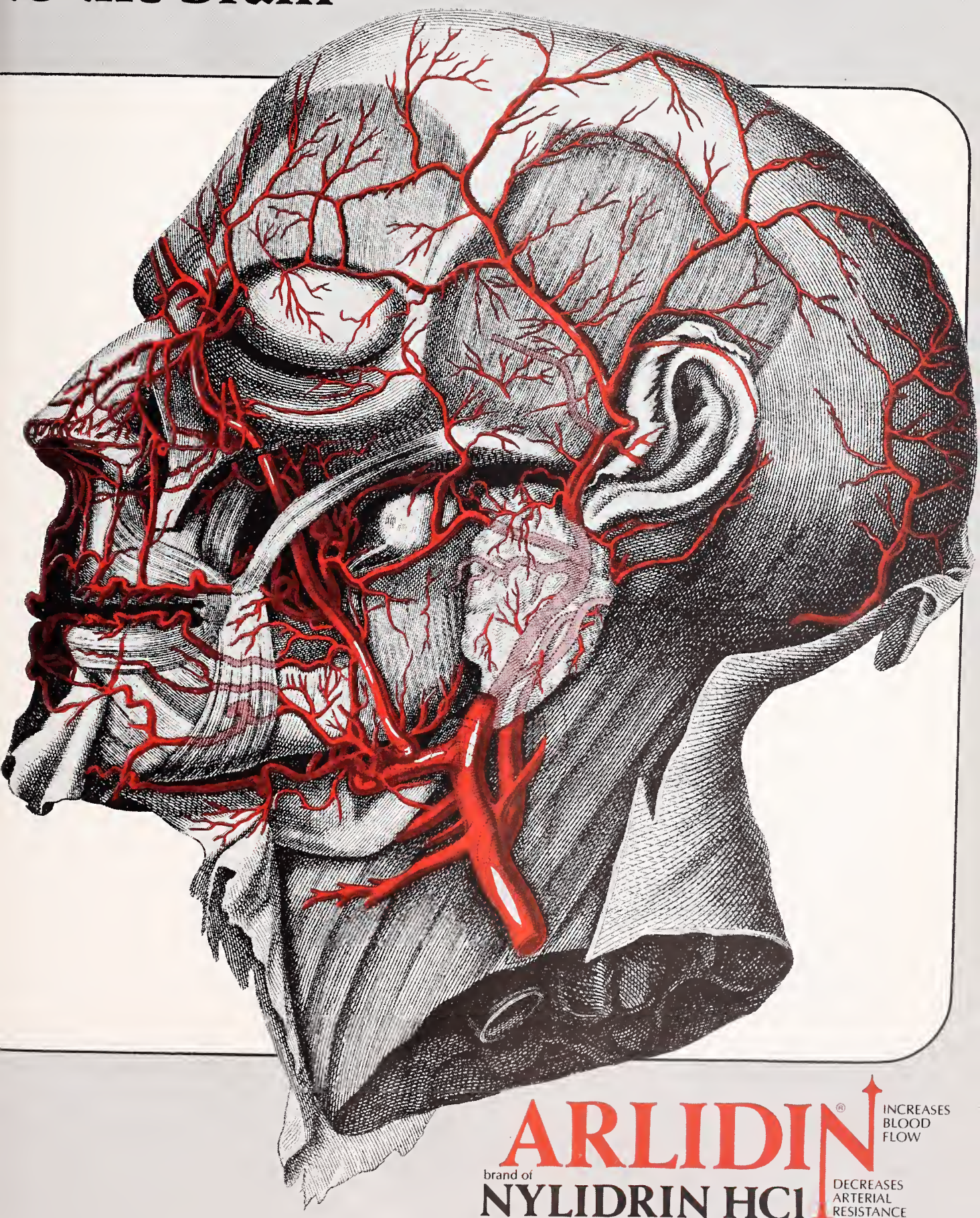
Arlidin is well tolerated and relatively free of severe adverse reactions.

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University Hospitals DRUG LETTER

Treatment of Congestive Heart Failure in Infancy

D. A. EHMKE, Ph.D., M.D., and R. M. LAUER, M.D.

DEATH FROM CONGESTIVE HEART FAILURE in the pediatric age group most frequently occurs during the first six months of life, and is usually the result of congenital abnormalities of the heart. Two exceptions to this are paroxysmal atrial tachycardia and viral myocarditis, both of which may occur in an otherwise normal infant. About 80 per cent of congenital defects resulting in serious difficulties to infants are now amenable to some form of surgical therapy. Thus the infant with congestive heart failure deserves not only vigorous therapy for his decompensation but also adequate investigation to allow for an accurate anatomical diagnosis so that surgical therapy, if required may be carried out in an expeditious fashion.

Clinical signs and symptoms of heart failure in infants usually are not evident until they occur in the resting state and consist of feeding difficulties, poor weight gain, excessive sweating, rapid respiration, enlargement of the liver, tachycardia, cardiomegaly and peripheral edema—a late sign manifested by puffiness around the eyes and/or in the hands and feet. A gallop rhythm also may be present, but may be difficult to detect because of tachycardia. When heart failure is suspected, a chest x-ray should be obtained for diagnostic purposes and to serve as a reference point for use in assessing treatment. An electrocardiogram should also be obtained, not only for diagnostic purposes but also to provide a baseline against which to compare succeeding tracings for signs of digitalis toxicity.

Once the diagnosis of heart failure is made, the decision has to be made whether emergency cardiac-catheterization studies and angiocardiography are appropriate, or whether intensive anticongestive measures should be tried before these diagnostic studies are carried out. The age at which congestive heart failure has occurred is often helpful in determining the correct course. The one-to-seven-day-old child with congestive heart failure usually deteriorates rather rapidly; therefore vigorous medical treatment should be started immediately, and emergency cardiac catheterization and angiocardiography should be performed as soon as possible. When cardiac failure first appears at age two-to-six-months, the infant can usually be greatly improved by routine anticongestive measures and cardiac diagnostic studies carried out on an elective basis. The best indicator of the adequacy of control of congestive heart failure in an infant is the baby's ability to ingest a sufficient volume of formula to allow growth. Infants who do not respond well to intensive medical treatment are potential candidates for surgical therapy.

Routine decongestive treatment consists of: (1) *A "neutral" thermal environment.* In the infant, temperature ranges have been observed which minimize the O_2 consumption and thereby reduce cardiac output. These ranges of temperature (88° to 90° F. for neonates, and 75° to 85° F. for infants six months old) are known as the "neutral" thermal environment. (2) *Elevation of the head and shoulders 20° to 30°.* (3) *Frequent small feedings for the very sick infant, by nipple or nasogastric tube.* (4) *An oxygen-enriched atmosphere* (30-40 per cent) *while tachypnea and cyanosis last.* (5) *Correction of anemia, if present, by packed-cell transfusion or supplemental oral iron, depending upon the severity of the anemia.* The optimal hematocrit for the cyanotic baby is thought to be between 40 and 45 per cent. (6) *Antibiotic therapy for those with clinical signs suggesting a respiratory infection.* (7) *Digitalization—preferably with digoxin, since this is available as a pediatric elixir as well as a parenteral solution.* A suggested dosage scale is shown in Table 1.

TABLE 1

DIGITALIZING DOSES FOR INFANTS

	Digitalizing Dose Oral Digoxin mg./Kg.	Digitalizing Dose Intramuscular Digoxin mg./Kg.
Prematures		
0-2 weeks	0.03	0.020
2 weeks to 3 months	0.04	0.025
Term newborns		
0 to 1 week	0.05	0.035
1 week to 3 months	0.07	0.045
Infants		
3 months to 1 year	0.08	0.050
Children		
1 year to 3 years (20-35 lbs.)	0.06	0.040
3 years and over	0.04	0.025

The authors are faculty members in the Department of Pediatrics at the U. of I. College of Medicine. This article appeared initially in the January, 1969, issue of DRUG LETTER, a monthly intramural publication of University Hospitals, Iowa City. It is reprinted here at the suggestion of the Clinical Pharmacology Committee at the University, and with the permission of the authors.

Our practice is to administer half of the digitalizing dose parenterally, to the infant in severe congestive heart failure, and to follow with the remainder of the dose orally over 18 to 24 hours. Daily maintenance is one-fourth to one-third of the total digitalizing dose divided into two doses and given 12 hours apart. The maintenance dose is started 24 hours after the initial dose. Individual tolerances vary considerably. Therefore digitalization should be carried out under electrocardiographic control, and increases in digoxin dosage should be made as needed. (8) *Diuretics.* There are some infants whose congestive failure does not respond completely to digitalis therapy but are helped by diuretics in conjunction with digitalis. The diuretics in common use are (a) mercury compounds such as meralluride (Mercuhydrin) and mercaptomerin (Thiomerin). The dosage scale is as follows:

0 to 1 month	0.1 to 0.25 ml.
1 month to 2 years	0.25 ml.
2 years to 13 years	0.3 to 1.5 ml.

These can be given every other day for several doses, but usually a response occurs promptly and the medication needs to be used infrequently. (b) Chlorothiazide (Diuril) is an effective diuretic and a useful preparation because it can be given orally. The dosage schedule is 15 to 30 mg./Kg. in divided doses every 12 hours. Significant electrolyte changes may occur when one uses either parenteral or oral diuretics, and they should be monitored frequently. (c) Ethacrynic acid in a single daily dose of 1 mg./Kg. intravenously over 15 minutes has proved extremely useful for the infant who is in serious cardiac decompensation and in whom immediate decongestion is required.

Babies under a month of age with congenital heart disease resulting in congestive heart failure frequently require emergency surgery because of the seriousness of their defects. Babies with pulmonic stenosis or pulmonary atresia but with an intact ventricular septum and pulmonary blood flow via a patent ductus arteriosus may be salvaged for a normal life expectancy by immediate surgery. Babies with a large-flow patent ductus arteriosus can be safely operated upon, and their circulation can be restored immediately to normal. Those with coarctation of the aorta who fail to respond to medical decongestive measures usually have associated intracardiac defects. Surgical intervention in this group has been associated with a high mortality (60 to 70 per cent). Infants with complete transposition of the great vessels and intact septa can be markedly helped by the creation of an inter-atrial communication. This communication can now be created successfully by pulling a catheter with an inflated balloon at its tip across the fossa ovalis. This allows mixing of the atrial blood and decompression of the left side of the heart. Patients with large left-to-right shunts at the ventricular level are frequently helped by means of pulmonary-artery banding, which diminishes pulmonary blood flow and increases systemic blood flow.

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4. Nadas, A. S., and Hauck, A. J.: Pediatric aspects of congestive heart failure. Circulation, **21**:424-429, (Mar.) 1960.

IMS Annual Meeting

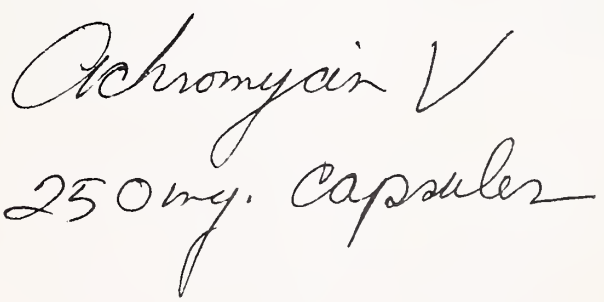
EARLY-BIRD BREAKFASTS
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8:00 a.m. to 9:00 a.m.

Monday, April 28
Tuesday, April 29

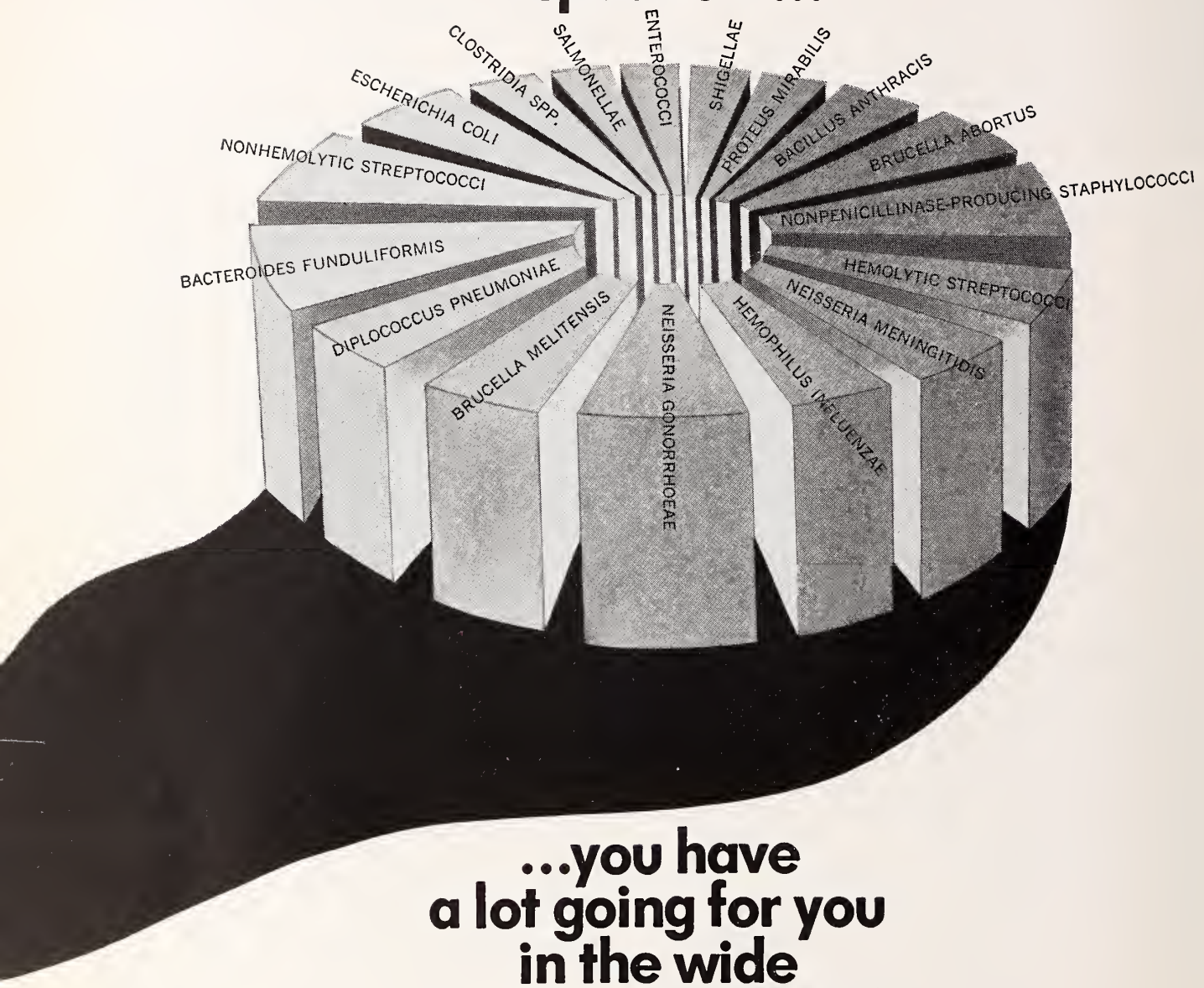
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Contraindications: A history of allergic reactions to penicillins or cephalosporins and infections due to penicillinase-producing organisms.
Precautions. Typical penicillin-allergic reactions may occur, especially in hypersensitive patients. Mycotic or bacterial superinfections may occur. Experience in newborn and premature infants is limited and caution should be used in treatment, with frequent organ function evaluations. Safety for use in pregnancy is not established. In gonorrheal therapy, serologic tests for syphilis should be performed initially and monthly for 4 months. Assess renal, hepatic and hematopoietic function intermittently during long-term therapy.
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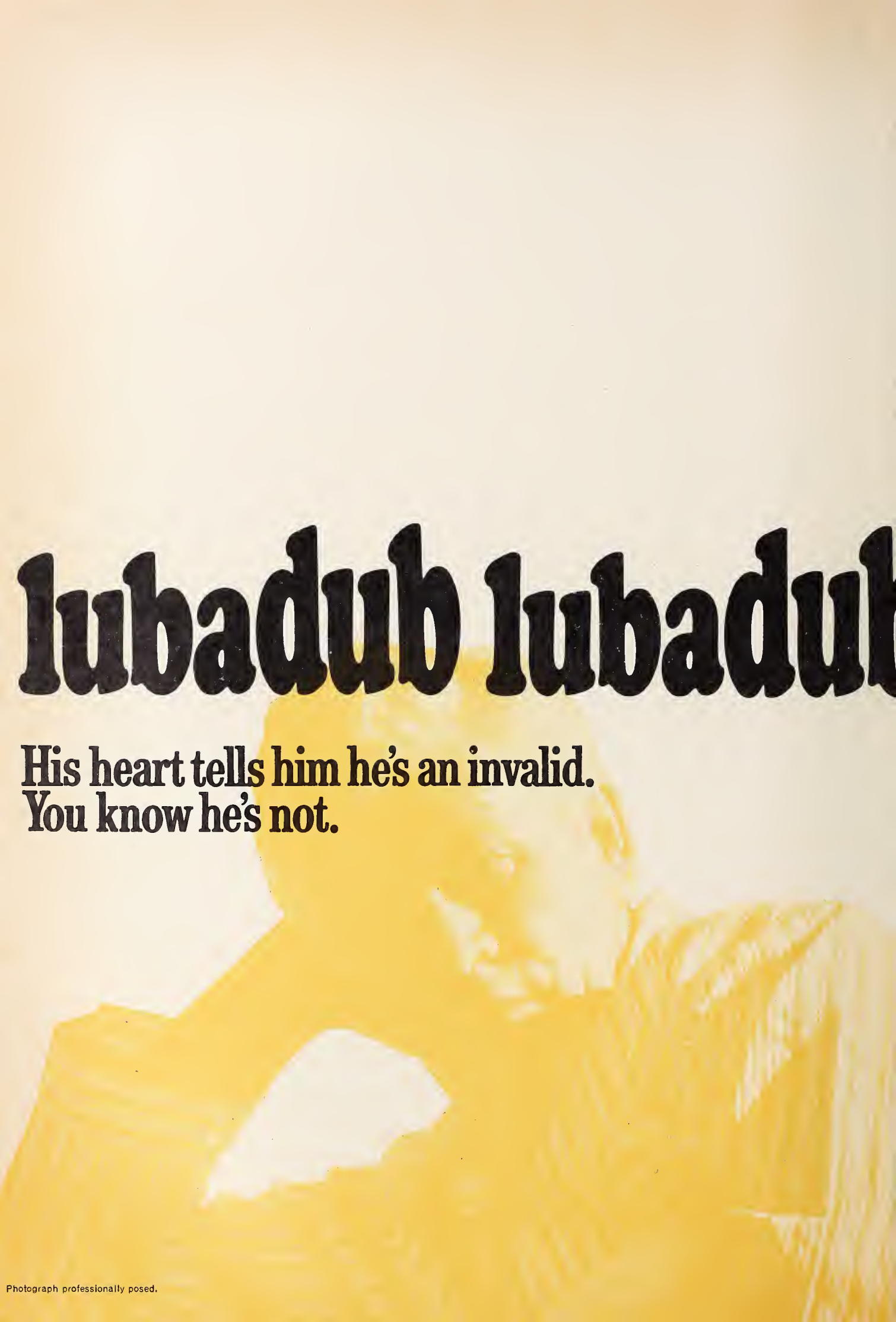
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Contraindications: History of sensitivity to meprobamate.

Important Precautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use has been reported to result in dependence or habituation in susceptible persons, as alcoholics, ex-addicts, and other severe psychoneurotics. After prolonged excessive dosage, reduce dosage gradually to avoid possibly severe withdrawal reactions. Abrupt discontinuance of excessive doses has sometimes resulted in epileptiform seizures.

Warn patients of possible reduced alcohol tolerance, with resultant slowing of reaction time and impairment of judgment and coordination.

Reduce dose if drowsiness, ataxia or visual disturbance occurs; if persistent, patients should not operate vehicles or dangerous machinery.

Side Effects include drowsiness, usually transient; if persistent and associated with ataxia, usually responds to dose reduction; occasionally concomitant CNS stimulants (amphetamine, mephentermine sulfate) are desirable. Allergic or idiosyncratic reactions are rare, but such reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Previous history of allergy may or may not be related to incidence of reactions. Mild reactions are characterized by itchy urticarial or erythematous maculopapular rash, generalized or confined to groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have been reported. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. If allergic reaction occurs, meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Treat symptomatically as with epinephrine, antihistamine and possibly hydrocortisone. Aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia have occurred rarely, almost always in presence of known toxic agents. A few cases of leukopenia, usually transient, have been reported on continuous administration.

Meprobamate may sometimes precipitate grand mal attacks in patients susceptible to both grand and petit mal. Extremely large doses can produce rhythmic fast activity in the cortical pattern. Impairment of accommodation and visual acuity has been reported rarely. After excessive dosage for weeks or months, withdraw gradually (1 or 2 weeks) to avoid recurrence of pretreatment symptoms (insomnia, severe anxiety, anorexia). Abrupt discontinuance of excessive doses has sometimes resulted in vomiting, ataxia, tremors, muscle twitching and epileptiform seizures. Prescribe very cautiously and in small amounts for patients with suicidal tendencies. Suicidal attempts have resulted in coma, shock, vasomotor and respiratory collapse and anuria. Excessive doses have resulted in prompt sleep; reduction of blood pressure, pulse and respiratory rates to basal levels; and occasionally hyperventilation. Treat with immediate gastric lavage and appropriate symptomatic therapy. (CNS stimulants and pressor amines as indicated.) Doses above 2400 mg./day are not recommended.

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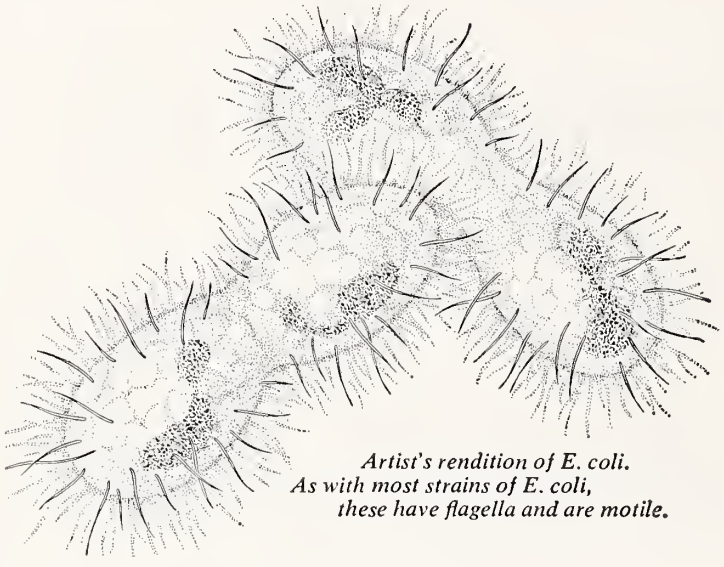
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patients, pregnant females at term, p
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praisal in patients with liver or re
damage, urinary obstruction or blo
dyscrasias. Deaths reported from h
persensitivity reactions, Stevens-Johns
syndrome, agranulocytosis, aplastic a
mia and other blood dyscrasias. In clos
intermittent or prolonged therapy, blo
counts and liver and kidney function te
should be performed. Clinical data ins
ficient on prolonged or recurrent thera
in chronic renal diseases of children u
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Precautions: Occasional failures may
cur due to resistant microorganisms. N
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up A beta-hemolytic streptococci. At
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te group A beta-hemolytic streptococ-
infections; although Gantanol has
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n rates in this infection, data insuffi-
nt on long-term follow-up studies as to
effect on sequelae of rheumatic fever
acute glomerulonephritis. If other
atment cannot be used and Gantanol
mployed in such infections, *important*
therapy be continued in usual rec-
mended dosage for at least 10 days.
erve usual sulfonamide therapy pre-
tions, including adequate fluid intake.
with caution if history of allergies
/or asthma. Follow closely patients
n renal impairment since this may
se excessive drug accumulation. Need
indicated local measures or surgery
obviated in localized infections.

erse Reactions: Depending upon the
erity of the reaction, may withdraw
g in event of headache, nausea, vomit-
urticaria, diarrhea, hepatitis, pancre-
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r, Stevens-Johnson syndrome, skin
, injection of the conjunctiva and
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Iowa Association of Medical Assistants

The Well-Oiled Machine

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Your office machines are made as nearly perfect as advanced engineering and precision manufacturing can make them. They are the quality products of skilled craftsmen, and with reasonable care they will give years of dependable service.

We all know that dust covers have a purpose—to keep ordinary dust from the air from getting into the mechanisms of the machines. There is a certain amount of lubricant needed in the mechanism, and it attracts dust unless the cover is put on at night and unless the machine is cleaned of the dusty accumulation which builds up naturally with day to day usage. (Paper itself is dusty.) It is necessary, moreover, to have professionals service the machines frequently. And leave the oiling to the service man!

This is the age of plastics, and many of our machines need special cleaners for their cases. A commercial solvent such as carbon tetrachloride or lighter fluid may damage the finish not to mention the dangers that such chemicals pose to you. Use a mild household type detergent, with water, to wash the case.

In cleaning your typewriter, move the carriage to the extreme right and left, and wipe the carriage rails with a dry cloth. Use it also to wipe the slots in the curved framework in which the type bars move, wiping toward you, and clean the type with a dry bristle brush. There are special putties, papers and type cleaners which do an excellent job of keeping the rounded letters free from the build-up of ribbon ink. There are also commercial cleaners for the cylinder and paper-feed rolls. Renew ribbons frequently for clear-cut copies. Store extra supplies in a cool place. Many electric machines use carbon-paper ribbons, and just one minute on a hot radiator can ruin a box of carbon paper.

Remember to move the carriage to the side of the machine when making an erasure; don't allow the eraser crumbles to fall into the machine. If you find an error after removing the paper from the machine, reinsert, put the ribbon on "stencil" and tap the key lightly to make sure that you have the paper in the proper position to make the correction. Then put the ribbon back on "black" and fill in the correction. When a letter's missing, erase the whole word. Position the carriage so there is an open space immediately following the last letter of the preceding word at the printing point. Release the space bar, depress it again and hold while striking the first letter. Release the space bar, depress it again and repeat this process and you will find the work has sufficient, though somewhat less than full, spacing before and after it. The same procedure works for a missing space. And, if by any chance two type bars collide and stick together—don't mess up your fingers in trying to pry them apart—just tap the "shift" key and the work will be done for you!

Your adding machine requires the same care

(Continued on page 354)

12th Annual Meeting of IAMA Davenport, Iowa

MAY 16-18, 1969

A stimulating program with a self-rating element and an education exchange between medical assistants promises another interesting convention.

One of the speakers will be the woman who "grooms" the candidates for the Miss America Pageant.

Dr. Faye Lewis, of Webster City, will present "Sincerely Yours." A representative from United Air Lines will do her best to hijack all IAMA members to Hawaii for the AAMA meeting in October, 1969. It is important for our IAMA members to attend not only the Davenport meeting, but the AAMA meeting as well. We must show Iowa hospitality in Hawaii and assure the girls from other states that they can be certain of a warm welcome to Des Moines when we host the AAMA convention here in 1970.

Davenport is waiting to welcome all of us and our guests in May. Don't forget the dates, May 16 to 18, and plan to be there!

The AMBAR SCRAPBOOK of Obesity Oddities
FACT & LEGEND



CONTROL FOOD AND MOOD ALL DAY LONG WITH A SINGLE MORNING DOSE

AMBAR #2 EXTENTABS®

methamphetamine HCl 15 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

One Ambar Extentab before breakfast can help control most patients' appetite for up to 12 hours. Methamphetamine, the appetite suppressant, gently elevates mood and helps overcome dieting frustrations. Phenobarbital, the sedative in Ambar, controls irritability and anxiety...helps maintain a state of mental calm and equanimity. Both work together to ease the tensions that erode the willpower during periods of dieting.

Also available: Ambar #1 Extentabs®—methamphetamine hydrochloride 10 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

BRIEF SUMMARY/**Indications:** Ambar suppresses appetite and helps offset emotional reactions to dieting. **Contraindications:** Hypersensitivity to barbiturates or sympathomimetics; patients with advanced renal or hepatic disease. **Precautions:** Administer with caution in the presence of cardiovascular disease or hypertension. **Side Effects:** Nervousness or excitement occasionally noted, but usually infrequent at recommended dosages. Slight drowsiness has been reported rarely. See package insert for further details.

A. H. ROBINS COMPANY, RICHMOND, VA. 23220 A·H·ROBINS

INFORMATION FROM THE
IOWA HEART ASSOCIATION

Management of Pulmonary Insufficiency

MARVIN A. SACKNER, M.D.
Miami Beach, Florida

Pulmonary insufficiency occurs acutely or chronically under conditions which generally include, in whole or in part, signs of breathlessness, obstruction of airways and retention of secretions. Institution of proper therapy calls for a prompt integration of the history, physical examination and laboratory tests.

The features of most historic significance are concerned with sputum and wheezing. For example, it is difficult to make a diagnosis of chronic bronchitis in a patient without eliciting a history of sputum production on his arising in the morning. A yellow or greenish color to sputum often signifies acute bronchopulmonary infection. Sudden cessation or marked reduction of sputum volume in a patient who has been chronically bringing up sputum may indicate retained secretions or mucoid impaction. Gradual reduction of sputum volume over months or years, accompanied by dyspnea, may signal the development of pulmonary emphysema. Wheezing is associated with bronchial asthma or bronchitis; it also occurs in severe congestive heart failure. Swelling of the ankles may be the result of cor pulmonale or of a mechanical obstruction of the inferior vena cava by depressed diaphragms. Smoking habits, occupational backgrounds and histories of exposure to noxious gases, fumes or dusts are helpful in establishing an etiologic diagnosis.

The decision to employ a specific means of mechanical aid to ventilation is most dependent upon the sensorium of the patient. Conservative measures are preferred when the patient is mentally alert, regardless of the disturbances in arterial blood gases. The breathing pattern is important in establishing whether reassurance, intermittent positive-pressure breathing with bronchodilators or intubation is indicated. Short, gasping inspirations in patients with obstructive airway disease may be caused by an anxiety reaction or acute bronchopulmonary infection. Prolongation of expiration occurs in bronchospasm and in emphysema. Occasionally the sole sign of airway obstruction is a vigorous contraction of the abdominal rectus muscles during expiration. Auscultation of the chest for wheezes, rales and audibility of breath sounds is helpful in the differential diagnosis of bronchospasm, congestion, fibrosis, pneumonitis and pneumothorax. A tracheal wheeze may result from the tracheobronchial collapse due to emphysema, or to upper-airway obstruction.

Analysis of the arterial-blood gases is a mandatory part of the clinical examination in every patient with pulmonary insufficiency. (For a detailed description of arterial-blood gas interpretation see Sackner, in MEDICAL TIMES 95:79, 1967). Important measurements obtained from the arterial-blood analysis include pH, carbon dioxide tension (pCO_2), base excess, oxygen tension (pO_2) and oxygen saturation. The blood pH is normally fixed between 7.38 and 7.42. It is affected by a change in pCO_2 and an accumulation of non-volatile acids or bases. Arterial pCO_2 ranges from 38-42 mm. Hg, and is inversely proportional to alveolar ventilation. Base excess is normally zero; a positive value indicates a base excess or a non-volatile acid deficit; a negative value indicates a base deficit or a non-volatile acid excess. Theoretically, the base excess can be determined by titration with a strong acid to a pH of 7.40 at a pCO_2 of 40 mm. Hg and a temperature of 38° centigrade. In practice, base excess is determined indirectly by calculation from a nomogram using values for pH, pCO_2 and hemoglobin concentration. The base excess should be considered as the indicator of metabolic, and the pCO_2 excess as the indicator of respiratory disturbances. A blood pH below 7.38 indicates acidosis. If the pCO_2 is greater than 42 mm. Hg, a respiratory acidosis exists, whereas if the base excess is less than –3 (i.e. –4, –5, –6 etc.), a metabolic acidosis is present. A positive base excess (+3 or greater) associated with a respiratory acidosis generally indicates that, in whole or part, the respiratory acidosis has been chronic.

The usual arterial-blood gas disorders in pulmonary insufficiency involve hypoxemia and respiratory alkalosis or acidosis. Respiratory alkalosis and hypoxemia are often found in the early stages of status asthmaticus and in atelectasis. Many patients with obstructive airway disease have hypoxemia only. Chronic respiratory acidosis is usually seen in patients with chronic bronchitis alone, or as the predominant disease in combined bronchitis and emphysema. Acute respiratory acidosis may occur in patients with pre-existing

Dr. Sackner is chief of the Division of Pulmonary Disease at Mt. Sinai Hospital, Miami Beach.

pulmonary diseases who have superimposed infections, retained secretions, narcotic dosage or overdosage, congestive heart failure, status asthmaticus or pneumothorax. Metabolic acidosis may complicate acute respiratory acidosis in conditions such as status asthmaticus and pulmonary edema.

A chest roentgenogram should always be obtained in patients with pulmonary emphysema who develop acute pulmonary insufficiency. In these patients, pneumothorax and pneumonitis may give rise to few or no physical signs. An electrocardiogram should be obtained routinely, since cardiac arrhythmias are frequent. A gram stain of the sputum smear should be examined immediately to help in the choice of an antibiotic.

In terms of management, we have found the following classification of pulmonary insufficiency useful. It is based on (1) the state of the sensorium, (2) obstructive airway signs, (3) signs of retained secretions, and (4) acid-base balance, as estimated by arterial-blood gas analysis.

Patient Alert, with Obstructive Airway Signs, but no CO_2 Retention. This is probably the commonest type of pulmonary insufficiency. It is found in status asthmaticus and in anxiety reactions in patients with pre-existing pulmonary diseases. Hypoxemia and respiratory alkalosis are generally present. Psychotherapy is by far the most important mode of treatment. The physician must repeatedly assure the patient that breathlessness will decrease if he slows his respiratory rate and if he relaxes. The physician must remain in the patient's presence and give vocal encouragement until he accomplishes this. In addition, but not as a substitute, intermittent positive-pressure breathing, using slow respiratory-flow rates and nebulizing 4-8 drops of racemic epinephrine in 5 ml. of intravenous aminophyllin solution for 15 minutes every 3 hours may be useful. If psychotherapy is ineffective, one must employ sedation, using mild tranquilizers or narcotics as indicated. Intravenous steroid and aminophyllin therapy are often beneficial. If there is co-existing metabolic acidosis as in status asthmaticus, 1 ampule of $NaHCO_3$ (44.5 mEq.) should be given initially for every –4 to –5 mEq. of base excess and further requirements, followed by serial arterial blood gas determinations.

Patient Alert, but with Obstructive Airway Signs and Acute Respiratory Acidosis. This condition develops in certain patients with status asthmaticus, in patients with emphysema and/or chronic bronchitis who develop a bronchopulmonary infection or an anxiety reaction. These patients frequently show rapid, shallow respirations, and hold their chests in a high inspiratory position. Reassurance should be employed, but it is not as effective as it is in patients without CO_2 retention. These patients should be treated with intermittent positive-pressure breathing until the arterial pCO_2 returns to normal. If bronchospasm exists, intravenous steroids and aminophyllin should be employed. Narcotics and sedation are usually contraindicated because of their depressant effects on the respiratory center. However, if the tachypnea persists and if the patient fights intermittent positive-pressure breathing, then a trial of sedation may be indicated. This type of treatment should be utilized only if the patient is in an intensive-care unit under close medical surveillance, and if intubation equipment is immediately available together with close monitoring of arterial blood gases. Base deficits should be corrected by means of intravenous sodium bicarbonate.

Patient Alert, with Retained Secretions, and with no CO_2 Retention. Representative examples in this category include pneumonitis, postoperative atelectasis, and acute exacerbations of chronic bronchitis or bronchiectasis. The best results in terms of removal of secretions are obtained with chest physiotherapy. A trained chest physiotherapist performs shaking and clapping of the chest and postural drainage, and educates the patient in correct coughing. Initially an experienced attending physician should always do the nasotrachial-suction before turning this task over to the nurse, for it is often difficult to carry out properly. Deep-breathing exercises and intermittent positive-pressure breathing should be used in atelectasis. Heated aerosol is indicated for loosening secretions in the large airways, and the ultrasonic nebulizer for loosening those in the small airways. Antibiotics should be administered if the sputum is purulent. Provided the patient remains alert, bronchoscopy usually is not required.

Patient Alert, but with Obstructive Airway Signs and Chronic Respiratory Acidosis. Patients with chronic bronchitis and/or emphysema may show this condition. The blood pH is near normal, the pCO_2 and the base excess are elevated, and hypoxemia is present. If the arterial pCO_2 is less than 62 mm. Hg with a near-normal pH, such a patient should be maintained on intermittent positive pressure breathing four times a day, or as necessary, either at home or in the hospital. An arterial pCO_2 above 62 mm. Hg represents an unstable condition, and the patient may become acutely acidotic with minimal stresses. Such a patient should be hospitalized and given hourly or two-hourly treatments with intermittent positive-pressure breathing until the pCO_2 falls below 62 mm. Hg. Measures must be taken to keep the pH normal by correcting the co-existing compensating metabolic alkalosis with saline, ammonium chloride, potassium chloride, arginine hydrochloride or diamox, as dictated by cardiac, renal and electrolyte considerations. The goal in therapy is to keep the pCO_2 below 62 mm. Hg while keeping the blood pH normal during room-air breathing. The objective is *not* to bring the pCO_2 down to a normal value of 40 mm. Hg. It is important to

ventilate these patients with oxygen concentrations not greater than 30 per cent, for respiratory-center depression may occur immediately after a treatment with the respirator if higher oxygen concentrations are used. As in other patients with obstructive airway signs, intravenous steroids and aminophyllin, chest physiotherapy and nasotracheal suction are useful adjuncts. This group of patients also frequently have incipient grades of congestive heart failure. Digitalis and diuretic therapy added to the regimen occasionally bring the pCO_2 to normal, and partially relieve the hypoxemia.

Patient Stuporous, with Acute Respiratory Acidosis. This condition is most likely to occur in obstructive-airway disease patients who have been given sedation, who develop an acute bronchopulmonary infection, or who have incomplete elimination or have been given anesthetics or neuromuscular agents following surgery. These patients should be treated with continuous intermittent positive-pressure breathing until the pCO_2 returns to normal. A volume-limited respirator with a mask is preferred, since one can overcome leaks by increasing the volume delivered by the machine, whereas pressure-limited respirators may not cycle well if inflation pressures greater than 25 cm. H_2O need to be employed. If the latter occurs, and if a volume-limited respirator is unavailable, then intubation should be carried out with a cuffed endotracheal tube. Besides, bronchoscopy is useful. Tracheostomy should be considered if there are copious secretions and if the patient cannot be taken off the endotracheal tube after 96 hours. Since gastric ileus occurs in many of these cases, the gastric contents should be emptied by means of a nasogastric tube.

Patient Stuporous, with Obstructive Airway Signs, and Acute and Chronic Respiratory Acidosis. Such a patient is best treated by continuous controlled ventilation by means of a mask and a volume-limited respirator. The condition can also be managed with a pressure-limited respirator, but one must be prepared to do more frequent monitoring of arterial-blood gases and ventilation. Intubation is usually necessary, however, when the latter type of respirator is employed. The goal of therapy is to reach a normal pH over a 6-24 hour period, *not a normal* pCO_2. Rapid correction of arterial pCO_2 to normal levels with alkaline pH is associated with a fatal encephalopathy in these patients. Adjunctive therapy includes chloride replacement or bicarbonate diuresis, antibiotics, nasogastric suction and diuretics. If secretions are thick and copious, and if a tracheostomy is employed, lung lavage should be done every four hours with a 5 ml. solution of equal parts of intravenous $NaHCO_3$ solution and saline.

Patient Comatose, with Respiratory Acidosis. Such a patient should be bronchoscoped at the bedside, the secretions should be removed and a cuffed endotracheal tube should be inserted. He should be placed on continuous controlled ventilation with a volume-limited respirator. The goal of therapy is restoration of normal pH. Depending upon the base excess, replacement of chloride or bicarbonate should be carried out. Nasogastric suction, antibiotics, diuretics and tracheostomy are useful adjunctive measures.

The Well-Oiled Machine

(Continued from page 350)

and consideration as your typewriter. It requires less cleaning, except for the dusting and cleaning of the outside case, but don't forget the dust cover too. If it is a newer model with a small keyboard, learn to use it with the touch system, just as you use the typewriter. The thumb operates the "0" key, the index finger operates keys 1, 4 and 7, and the correction lever if it is on the right side of the keyboard. The middle finger operates keys 2, 5 and 8, and the ring finger operates 3, 6 and 9 and the repeat "X" bar. The little finger operates the remaining control bars on the right side of the keyboard. Learn the key positions by touch, and with practice your speed and efficiency will improve automatically. It's easy! Try it!

—HELEN G. HUGHES

Stroke Symposium

A Stroke Symposium sponsored by the North Iowa Stroke Rehabilitation Program will be held at Witke's Restaurant and the Surf Ballroom, in Clear Lake, on Thursday, April 17.

The program will occupy the afternoon and evening:

1:00 p.m. "The Significance and Treatment of the Transient Ischemic Attack"—Robert G. Siekert, M.D., of the Mayo Clinic

1:45 p.m. "Physiology of the Cerebral Blood Flow: Clinical Applications"—Scott Davenport, M.D., Department of Neurology, U. of I. College of Medicine

3:00 p.m. "Diagnosis and Surgical Treatment of Cerebral Arterial Insufficiency"—Montague Lawrence, M.D., Department of Surgery, U. of I. College of Medicine

3:45 p.m. "Prevention of Stroke Complications and Rehabilitation of Stroke Patients"—Lucy Schultz, R.N., Houston

4:30 p.m. PANEL DISCUSSION (All previous speakers and Hallard Beard, M.D., Mason City, moderator)

6:30 p.m. DINNER
"The Aggressive Management of the Intensive Coronary Care Unit"—John Kimball, M.D., Cornell University Medical Center, New York City

STATE DEPARTMENT OF HEALTH

James F. Speers M.D.

JAMES F. SPEERS, M.D., M.P.H., COMMISSIONER

Prevent Disease Resulting From Floods

Tetanus and Typhoid

The question of need for typhoid immunization during flood periods is being raised with increasing frequency. The Public Health Service Advisory Committee on Immunization Practices has made recommendations which say: "Although typhoid vaccine has been suggested for individuals attending summer camps and those in areas where flooding has occurred, there are no data to support the continuation of these practices."

The incidence of typhoid in the United States is very low and the threat, even in floods, is minimal. There have been no known cases of typhoid in Iowa following any recent floods.

The danger from floods is principally from enteric diseases other than typhoid and infectious hepatitis. Since immunization is not available against these diseases, excellent personal hygiene is the best preventive. If contact with flooded areas is inescapable, the public should be warned about eating with unwashed hands or otherwise carrying flood-contaminated material into the mouth. Smoking with contaminated hands may be doubly dangerous.

Typhoid immunization requires at least two doses of vaccine to produce immunity, and then only after a considerable interval. Typhoid immunization may give a false sense of security to recipients and lead to carelessness in flood environs. The Department of Health does not recommend mass typhoid immunization because of flooding.

The danger of wounding, particularly among persons combating emergencies, is increased during floods. Placing sandbags in difficult locations or the vigorous shoveling of a sandbag filler with poor marksmanship are examples of hazards.

The Department of Health earnestly recommends timely basic immunization with tetanus toxoid. A booster dose should be given every 10 years, and whenever deep or puncture wounds have been suffered.

Some areas of the state will experience severe flooding this spring. When this happens it is important for people in flood areas to follow recommended procedures as a means of helping prevent disease from floods.

Safeguard Drinking Water

Drinking water contaminated by flood water may carry disease-producing germs which cause diarrhea, infectious hepatitis, dysentery, enteritis, and other water-borne diseases. Public, rather than private, water supplies should be used whenever possible. All drinking water from wells or springs which may have been contaminated by flood water should be boiled for at least two minutes. To restore a flooded well:

a. Pump the well, and drain the piping system to remove all dirty water.

b. Disinfect the well with a chlorine compound such as ¼ pound of chlorinated lime (not quick lime or hydrated lime), or one gallon of Clorox, Hilex or a similar laundry bleach. Mix it before pouring it into the well. Leave chlorine solution in well and piping system for at least 24 hours before pumping it out. After all chlorine has been pumped from well (when there no longer is a chlorine taste or odor in water), test the purity of the water. A sample may be sent to the State Hygienic Laboratory, Iowa City. Collection bottle and mailable container must be secured from the Laboratory.

Safeguard Against Contaminated and Spoiled Food

All milk for human consumption should be properly pasteurized. If pasteurized milk is not available, raw milk should be heated to the boiling point before being used. All canned foods, meats, and vegetables stored in flooded areas should be treated as follows:

a. Throw away food in containers showing signs of leakage.

b. Destroy the contents of corked bottles and screw-top glass containers if they have been covered by floodwaters.

c. Carefully wash with soap and hot water all cans of food which have been covered by floodwater. Sterilize the outside of can by immersing it in water and boiling it for 30 seconds, or by wiping the top with full-strength chlorine bleach. Be sure the can-opener is clean.

d. Destroy all root and garden vegetables or foods in cardboard or similar containers that have come into contact with flood waters, unless they will be thoroughly cooked before being eaten.

Refrigerated Foods

Failure of home refrigeration facilities for just one day may lead to food spoilage. The foods most likely to be affected include cream-filled pastries, tongue, ham, luncheon meats, salads, etc. When refrigeration has failed, such foods are not safe and should be destroyed. Cooked foods such as stews or leftovers stored in deep freezers should not be used if they have thawed. Thawed foods should not be refrozen. If the freezer temperature has been 50 degrees or higher for several hours, the thawed foods may be used within a few hours. Such thawed meat should not be served rare, but should be thoroughly cooked before it is eaten.

Clean Up Your Home

When the flood water has left the home, scrub all affected surfaces with soap and water, and then rinse with a chlorine solution consisting of one-half cup chlorine laundry bleach to each gallon of water. Do not mix chlorine with ammonia or with cleansers containing ammonia.

Personal Hygiene

Wash your hands thoroughly with soap and water after handling contaminated articles or working in flood clean-up.

Serologic Examination for Rubella

The importance of rubella antibody testing was reaffirmed by studies conducted during the 1964 rubella epidemic. Prior to 1964, the estimates for risk of congenital rubella infections was 15 to 20 per cent, but subsequent studies have placed the overall risk even higher. Clinical manifestations associated with the congenital rubella syndrome include congenital heart and eye defects, growth and mental retardation, bone malformations, thrombocytopenia purpura and hepatosplenomegaly, as well as spontaneous abortions and stillbirth. About 20,000 such congenitally defective infants were reported as a result of the 1964 epidemic. Furthermore, newborns with this syndrome may excrete the rubella virus for months after birth, and thus become a hazard to susceptible hospital personnel and family contacts.

Until recently no inexpensive and practical test has been available for the determination of rubella antibodies. This situation was changed with the development and standardization of the hemagglutination inhibition test (the HI test) for rubella. The State Hygienic Laboratory, in Iowa City, has been performing this test since April, 1968, and this service is now routinely available to the practicing physicians of Iowa. About 5 ml of clotted blood should be collected and sent to the laboratory for this serologic examination.

At present, the following interpretations are usually given for the results obtained with the hemagglutination inhibition test for rubella:

> A four-fold or greater rise in HI antibody titer between the acute and convalescent sera confirms the diagnosis of rubella in a clinically suspected case. Antibody levels may rise from $< 1:10$ to 1:40 or greater. Since HI titers of 1:40 to 1:640 may persist for years after rubella infection, the height of the antibody titer cannot be used in determining whether the infection was recent.
>
> When a single serum is submitted prior to exposure or within seven days after exposure, an HI titer of $< 1:10$ indicates no serologic evidence of past infection with rubella virus, whereas, a titer of 1:10 or greater indicates a past infection with rubella virus and consequent immunity.

Requests for rubella antibody titers will be given priority in the following situations:

1. To determine the immune status of a pregnant woman in her first trimester who has had documented exposure to rubella. The requirements call for a single blood specimen which has been collected within a week following the exposure.
2. To confirm a rubella infection in a pregnant woman in her first trimester. The requirements call for a blood specimen collected when the rash appeared and a convalescent specimen collected 10-14 days after the acute specimen.
3. To confirm rubella infection in contacts of pregnant women, acute and convalescent blood specimens are required.
4. To investigate presumptive complications of rubella infection. Paired acute and convalescent bloods are required.

For further information address: Virology Division, State Hygienic Laboratory, University of Iowa, Iowa City 52240, or telephone (319)-353-5990.

First ICS Seminar on Obstetrics and Gynecology

The International College of Surgeons, in cooperation with five Chicago medical schools and hospitals, is sponsoring its first International Symposium on Obstetrics and Gynecology, from April 20 to 26 in Chicago. The seminar is open to physicians at no registration fee.

Six world-renowned surgeons will participate: Professor Ernst Navratil, of Graz, Austria; Professor Nicholas Louros, of Athens; Professor Alexander Brunschwig, of New York City; Professor Wladimiro Ingiulla, of Rome; Professor Stanley Way, of Gateshead, England; and Professor Chien Tien Hsu, of Taipei. The program will include

moving picture and panel presentations and operative clinics. The subjects are to be radical pelvic surgery—abdominal and vaginal approaches; pelvic surgery for non-malignant conditions, including stress incontinence, urologic fistulae in women and pelvic hernias; and endometriosis—medical, surgical and hormonal treatments.

Advance registration should be made by writing or calling The International College of Surgeons, 1516 North Lake Shore Drive, Chicago 60610. Phone: (312) 642-3555.

Air Pollution Control Commission Rules for Open Burning, Effective April 10, 1969

Rules and regulations governing open burning promulgated by the Iowa Air Pollution Commission, filed with the Secretary of State on January 10, 1966, established the effective date of April 10, 1969, for private operations, and April 10, 1970, for governmental operations.

Authority for such rules is noted in Section 4.3 and Section 4.5 of Chapter 162, Acts of Sixty-second Iowa General Assembly.

Because of financing requirements, special effective dates are provided in regard to refuse disposal by open burning conducted by municipalities, counties, and state agencies as follows:

Effective date: Governmental bodies conducting refuse-disposal operations by burning shall submit to the Commission proposals for meeting these rules and regulations within six months after the effective date (April 10, 1969) and shall comply with these rules and regulations within twelve (12) months after the effective date (April 10, 1970).

Exemptions provided in the rules are summarized as follows:

a. Cooking of food: Open fires used only for the cooking of food for human consumption, or for recreational purposes, except for the premises of permanent commercial establishments.

b. Premise fires: Backyard burning, not including garbage, at dwellings for four-family units or less. Unless otherwise provided by ordinance or regulation, fires for the open burning of plant material grown on the premises or deposited thereon by the elements shall be permitted.

c. Diseased trees: When the burning of diseased trees causes air pollution, the Commission may take appropriate action to secure relocation of the burning operations.

d. Disaster rubbish: The open burning of rubbish produced during community disasters in cases where an officially-declared emergency condition exists.

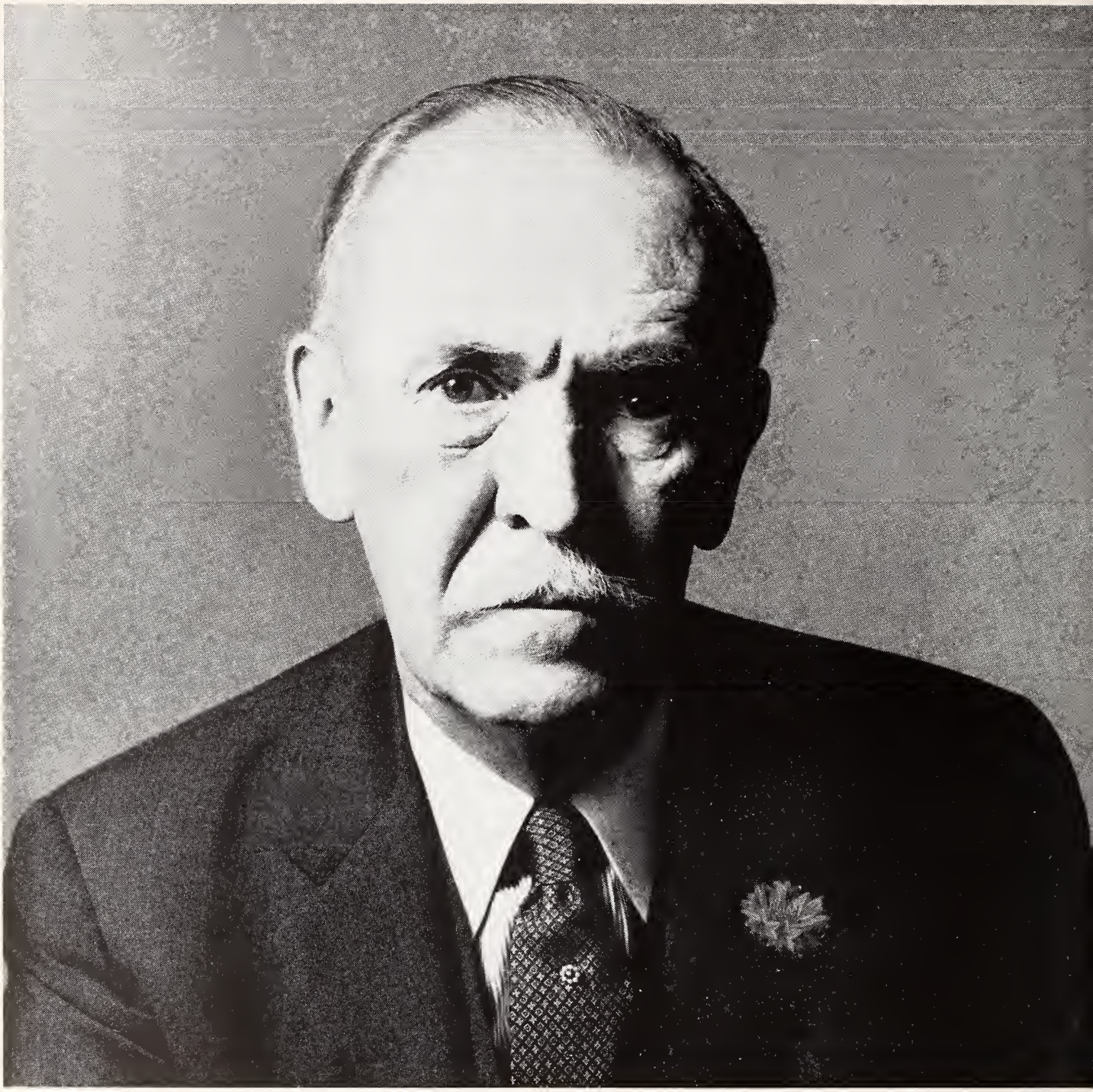
e. Flare stacks: Flare stacks for the combustion of waste gases.

f. Training fires: Fires set for the purpose of bona fide instruction and training of public or industrial employees in the methods of fighting fires.

g. Clearing and grubbing rubbish. The open burning of combustible materials produced in clearing, grubbing, and construction operations, provided that such burning shall be limited to areas located at least one-fourth mile from any inhabited building.

Monthly Report for Month of February, 1969

Diseases	Feb. 1969	Jan. 1969	Feb. 1968	Most Cases Reported From These Counties
Aseptic meningitis	0	0	0	
Brucellosis	1	0	0	Cedar
Chickenpox	639	787	882	Des Moines, Dubuque, Linn
Encephalitis	3	1	0	Chickasaw, Floyd, Monona
Food poisoning	0	0	0	
German measles	332	183	181	Black Hawk, Kossuth, Polk
Gonorrhea	272	288	262	Urban counties
Histoplasmosis	2	2	1	Monroe, Woodbury
Impetigo	42	31	61	Black Hawk, Polk
Infectious hepatitis	26	53	65	Black Hawk, Pottawattamie, Scott
Infectious mononucleosis	70	54	30	Johnson, O'Brien
Measles	31	22	14	Dallas, Polk
Meningitis, H. influenzal	2	2	2	Polk
Meningitis, meningococcal	2	3	3	Dubuque, Harrison
Meningitis, type unspec.	2	0	0	Linn
Mumps	872	806	1,983	Clay, Floyd, Johnson, Scott
Pneumonia	62	35	26	Cherokee, Johnson, Linn
Rabies in animals	13	7	12	Hancock
Rheumatic fever	11	5	4	Johnson, Muscatine
Salmonellosis	9	16	4	Scattered
Streptococcal infections	584	530	649	Jefferson, Johnson
Shigellosis	0	2	4	
Syphilis	50	55	58	Urban counties
Tuberculosis	10	15	11	Scattered



Help the Needy!

This patient may appear to "have everything" but, like so many people getting along in years, he may well be in need—*medically*. Though there is no evidence of organic disease, he does have symptoms (fatigue, vague aches and pains, malaise) that may be indicative of—

a need to maintain anabolic balance... to counteract declining gonadal hormone secretion and forestall premature degenerative changes related to estrogen deficiency;

a need for mood elevation... to impart a gentle emotional uplift;

a need for nutritional supplementation... to compensate for the poor eating habits and subsequent dietary insufficiency of so many older people.

For these needs, consider MEDIATRIC for your next "needy" patient... medically.

MEDIATRIC provides specific agents to fulfill a need in the three areas:

1. **Gonadal steroids** [PREMARIN® (conjugated estrogens-equine), an orally active, natural estrogen, and methyltestosterone] for physiologic and metabolic benefits.

2. **Methamphetamine** to provide gentle elevation of mood.

3. **Nutritional supplements** specially selected to meet the requirements of the elderly individual.

Mediatric®

tablets • capsules • liquid

Steroid-nutritional compound

	Each MEDIATRIC® Tablet or Capsule contains:	Each 15 cc. (3 teaspoonfuls) of MEDIATRIC® Liquid contains:
Conjugated estrogens-equine (PREMARIN®)	0.25 mg.	0.25 mg.
Methyltestosterone	2.5 mg.	2.5 mg.
Methamphetamine HCl	1.0 mg.	1.0 mg.
Cyanocobalamin	2.5 mcg.	1.5 mcg.
Intrinsic factor concentrate	8.0 mg.	—
Thiamine HCl	—	5.0 mg.
Thiamine mononitrate	10.0 mg.	—
Riboflavin	5.0 mg.	—
Niacinamide	50.0 mg.	—
Pyridoxine HCl	3.0 mg.	—
Calcium pantothenate	20.0 mg.	—
Ferrous sulfate exsic.	30.0 mg.	—
Ascorbic acid	100.0 mg.	—
		Contains 15% alcohol† † Some Loss Unavoidable.

Contraindication: Carcinoma of the prostate, due to methyltestosterone component.

Warning: Some patients with pernicious anemia may not respond to treatment with the Tablets or Capsules, nor is cessation of response predictable. Periodic examinations and laboratory studies of pernicious anemia patients are essential and recommended.

Side Effects: In addition to withdrawal bleeding, breast tenderness or hirsutism may occur.

Suggested Dosages: *Male and female*—1 Tablet or Capsule, or 3 teaspoonfuls Liquid, daily or as required.

In the female: To avoid continuous stimulation of breast and uterus, cyclic therapy is recommended (3 week regimen with 1 week rest period—Withdrawal bleeding may occur during this 1 week rest period).
In the male: A careful check should be made on the status of the prostate gland when therapy is given for protracted intervals.

Supplied: No. 752—MEDIATRIC Tablets, in bottles of 100 and 1,000.
No. 252—MEDIATRIC Capsules, in bottles of 30, 100, and 1,000.
No. 910—MEDIATRIC Liquid, in bottles of 16 fluidounces.

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Woman's Auxiliary News

Rostrum Ramblings

And now, suddenly, here is the "swan song" of Rostrum Ramblings. Sometimes it hardly seems possible that the year is drawing to a close so soon, although there have been occasions when I thought it would never end. It has been an interesting and rewarding year, albeit sometimes a frustrating one, and I am grateful to you for the privilege of serving it.

We have done some things that needed doing, and have had to leave others undone. In the future I hope we can increase the community service and participation by county Auxiliaries and by members-at-large. I hope we can bring to the people of our communities the medical and health information that they are so anxious to have—information about drugs, alcoholism, venereal disease, immunization, and all the other topics about which they are greatly concerned. I hope, too, that we can continue to take pride in our husbands' profession and that we can inform ourselves so that we can sturdily confront its detractors.

Come to the Annual Meeting, all of you. Your officers and committees have worked hard to make it interesting and worth your time. The program will be informative, and we hope that the chance it will provide you to trade ideas and renew friendships will be most valuable.

Now, my blessings and best wishes to my successor, and my pledge to help her in any way I can, just as my predecessors have helped me. My heartfelt thanks to all of you who gave so unselfishly of your time and talents the past year. It has been a year I shall never forget, and I thank you for it.

So many things I've left undone,
Like marching soldiers, one by one;
They pass before me in review
—The little things I meant to do!
—Anonymous

SEE YOU AT CONVENTION!—OUR 40th ANNIVERSARY!

—Lenor Bishop (Mrs. James F.)

Health Careers

Our Health Careers project for the past year has been to find what health training facilities and programs were available in the state.

This has been a project on the National level, too, and it has involved all state Health Careers chairmen. In Iowa we have had excellent cooperation from the State Board of Education, the Health Education Division of the State Health Department, and the Office of Medical Affairs at the University of Iowa, and we shall be contacting all state chairmen of the organized associations of the different health careers involved.

The purpose of this project was to find out how many students are now enrolled for training in the major and allied health fields and how many are graduated each year.

Many new health career training programs are being started and we are hopeful of recruiting a large number of students from each high school graduating class. Ten per cent of all high school graduates each year should choose to enter some area of the health training program or the allied health fields if we are to keep ahead of our national need. The critical shortage that exists is threefold: 1. Too few training programs; 2. Insufficient enrollment (calling for recruitment); 3. Lack of facilities and trained instructors to take care of an increased enrollment.

Iowa is making progress by adding new training programs, but it is not yet time to relax our efforts. We must continue to provide the school guidance counselors with up-to-date information that they can pass on to the students.

Encourage health career clubs, and provide them with good program suggestions. Workshops and career days, with well organized programs, are important and effective. Be sure the schools in Your area have the information the students need if they are to be motivated to enter accredited and recognized schools for training. This information must include entrance requirements (including aptitude), study time involved, class enrollment limits, job prospects upon completion of training, need for various types of workers, working conditions and probable starting salary.

Of course a health career is not for everyone, but there are programs and training opportunities

PLEASE ATTEND THE ANNUAL MEETING—APRIL 27-30—HOTEL KIRKWOOD

for all those who have an aptitude and an interest in one of the more than 700 occupations and professions in the health field. All of these occupations have a lot in common, but no two are exactly alike, nor do they require the same skills and abilities. Each offers its own rewards, satisfactions and challenges. Each is searching for personnel.

—MRS. C. O. ADAMS, *Chairman*

Some state Auxiliaries have identification tags, arm bands, etc., for members to wear whenever they are doing volunteer work. For instance, members of the Woman's Auxiliary to the Texas Medical Society are recognized by the "hand" they wear.

Women's Traffic Safety Conference

The 1969 Iowa Women's Traffic Safety Conference was held in Des Moines on February 10-11. The purpose was "to encourage the women's organizations of Iowa to support the application of a balanced action program at the state and local levels."

Talks were given on motorcycle legislation; the slow-moving vehicle emblem; motor-vehicle inspection; drinking-driver legislation; women's role in traffic safety; traffic safety—the Iowa evaluation; and pedestrian visibility.

The "Breathalyzer" used in some states as a test for intoxication was on display. The Safety Education Division of the Public Safety Department is asking for a change in Iowa's "implied consent" law so that a police officer can test a driver's breath before actually arresting him. Our laws should be more specific about what per cent alcohol constitutes intoxication.

The film "Step Lively" was shown by the Reflective Products Division of Minnesota Mining & Manufacturing, St. Paul, Minnesota. The pedestrian is the only movable object allowed on streets at night without lights. With reflective materials such as a piece of reflector-encrusted tape on his shoes, the walker can be seen as far as 600 feet away at night.

Quoting from TODAY'S HEALTH: "You can cut the risk of after-dark walking and cycling by applying the materials to your coats, shoes, umbrellas, bikes, your youngsters' back-to-school clothes, and even your dog's collar." Ten states have passed laws requiring slow-moving vehicles such as tractors and trailers to display a standard reflective emblem. In nine months, collisions were reduced by 32 per cent by this means.

Experienced drivers must learn to drive more intelligently. Defensive-driving courses encourage young and old to drive efficiently. Periodic motor inspection should be conducted by legally authorized investigators.

There will be a member of the Education Division of the State Department of Public Safety available at the April convention of Woman's Medical Auxiliary to the IMS. We shall have many of these safety devices on exhibit there.

A representative from any women's organization in Iowa that is participating in safety programs can now become a member of the Iowa Women's Traffic Council.

—MRS. H. A. WEIS

International Health

After several conferences with the AMA Advisors and the AMA International Health Department, the Woman's Auxiliary has been advised to "phase-out" the collection of physicians' pharmaceutical samples by March 15, 1969, as a national project. There are a number of reasons:

1) Difficulty in securing proper supervision of sorting.
2) Customs restrictions in some countries.
3) Cost of assembling and shipping.
4) The FDA raises many questions about drugs in this country.
5) Five out of ten agencies approved by the FDA for receiving the pharmaceuticals have indicated that they do not want to continue doing so.

Those agencies that will still receive your drugs, should you have some on hand now are:

1) Bethlehem Fathers, Inc.
 5630 East 17th Avenue
 Denver, Colorado 80220
2) Direct Relief Foundation
 27 East Cañon Perdido Street
 Santa Barbara, California 93101
3) World Medical Relief, Inc.
 11745 Twelfth Street, Detroit, Michigan 48206
4) Project Concern, Inc.
 P. O. Box 2468, San Diego, California 92112

Project Concern has informed us that it now has a six-to-nine-month supply of the following articles: stocking dolls, crocheted balls, sheet and knitted bandages.

The other projects in the IHA program will be continued. More about them later.

Thank you for your past efforts in behalf of the Auxiliary.

—MRS. A. C. RICHMOND
IHA Chairman

Why can't life's problems hit us when we are eighteen and know all the answers?

Around the Hawkeye State

Clinton County

Mrs. George York, president of the Clinton County Auxiliary, recently presented checks totaling $1,000 to Dr. Juergen F. Holl, secretary-treasurer, medical staff at Mercy Hospital, Clinton, and Dr. Garo A. Chalian, president of the medical staff of Jane Lamb Hospital there. The money constituted the proceeds from the 1968 Charity Ball, which go annually to buy equipment for the hospitals. For example, previous Charity Ball proceeds have purchased a heart-lung resuscitator which is used in cases of cardiac arrest or accidents affecting the functions of the heart or lungs.

Marion County

The Marion County Medical Auxiliary continues to distinguish itself in donations and service to the community. At its January 27 meeting, it donated $500.00 to the Griffin Happy Orchard School for Retarded Children, $100.00 to AMA-ERF, and $50.00 to the Befriender Club.

At the DPT clinic, which was held February 21, the Auxiliary was represented by Mrs. F. P. Ralston, Mrs. M. Tahir, Mrs. T. D. Clark, Mrs. D. A. Mater, Mrs. R. R. McClung, Mrs. C. R. Burroughs, Mrs. Y. Sloterdyk, and Mrs. R. L. Augspurger, who volunteered their help as nurses or clerks.

Pottawattamie County

The Pottawattamie County Medical Auxiliary held its annual bridge luncheon and style show at the Elks Country Club, Council Bluffs, on March 18. A luncheon at noon preceded the style show of lingerie fashions modeled by members and their children. Proceeds from this event were donated to the local hospitals. Mrs. Hormoz Rassekh, chairman, was assisted in preparing the spring theme decorations by Mrs. I. J. Hanssmann, Mrs. R. A. Forrest, Mrs. Maurice Margules, Mrs. James Knott, and Mrs. Jose Martinez.

Wapello County

The Wapello County Medical Auxiliary entertained the Future Nurses Club from Ottumwa High School at a tea on Saturday, February 15, at the Ottumwa Hospital.

The moving picture "Horizons Unlimited" pleased the girls in attendance so much they asked to show it at their regular meeting at the school the following week. The film tells of the career opportunities in the medical and allied health fields that are available to all students wishing to further their education. Since the FNC members are all sincerely interested in the allied medical fields, the film was especially well received.

For a number of years the Medical Auxiliary has offered to assist any student in Wapello County in any health career educational opportunities by means of its loan fund.

The FNC sponsor, the school nurse, is an outstanding leader. With her excellent cooperation, the Auxiliary hopes to continue stimulating interest in health careers. The local girls' organization continues as a Future Nurses Club, but no doubt it will develop into a Health Careers Club to encompass more allied medical fields.

The committee for the tea consisted of Mrs. D. G. Emanuel, chairman, Mrs. F. W. Morgan, and Mrs. D. O. Holman.

Is this space
where your
county's news
should have been?
It was
reserved for you.

None of us knows what is ahead. The important thing is to use today wisely and well, and to face tomorrow eagerly, cheerfully and with the certainty that we shall be equal to what each day brings.

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WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

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Assistant Editor—Mrs. D. A. Mater, 302 South Fourth Street, Knoxville 50138

In the Public Interest



Iowa Needs a Professional-Corporation Enabling Act

The Professional Corporation Bill (SF554) now under consideration by the 1969 General Assembly of Iowa would permit architects, attorneys, accountants, dentists, engineers, optometrists, physicians, podiatrists, veterinarians, land surveyors and chiropractors to establish corporations of a special type in which no one other than licensed practitioners of their respective professions could be stockholders. Upon its adoption nothing would remain at the state level to prevent them from receiving the preferred tax treatment and various fringe benefits now available in Iowa only to employees of business corporations. One advantage would consist of deferring income-tax on moneys set aside, year by year, to finance their own future retirement, and to provide pension plans and other inducements with which to attract and hold the assistants, clerical workers and aides who share their work.

During the past few years the Keogh Law has provided self-employed professional men and women with what many of them regard as half a loaf. Under the Keogh terms such an individual was permitted to defer the tax on sums which initially were no greater than $1,250 and now can be no greater than $2,500 per year to purchase an annuity or some other retirement-income plan for himself, provided that he undertook to invest comparable amounts on behalf of his employees for a similar purpose. When SF554 becomes law—as, hopefully, it will—professionals can avail themselves of corporate retirement plans for which premiums can be tax-deductible up to 15 per cent of their incomes. In addition, they can keep themselves out of the higher surtax brackets by having the corporation hold back some of their earnings and pay tax upon those sums at the lower corporate rates. Group term insurance, sick-pay plans, medical-cost reimbursement plans and $5,000 in death benefits could become available to the professionals and their assistants, all at the expense of the corporation.

Under present law, withdrawals from pension and profit-sharing plans are taxable at capital-gains rates, but withdrawals from Keogh funds are taxed as ordinary income. Somewhat similarly, inheritances from pension or profit-sharing plans are not subject to the federal estate tax, but inherited Keogh funds are subject to it.

Business corporations have always been able to provide all these things for their employees, and changing the Iowa law so as to make them available to professional people will constitute no more than simple justice. In fact, enactment of SF554 will be a first step toward eliminating a tax discrimination against professionals which tempts them to abandon private practice and enter the employ of a corporation that can provide them, right now, with deferred-compensation plans and other fringe benefits.

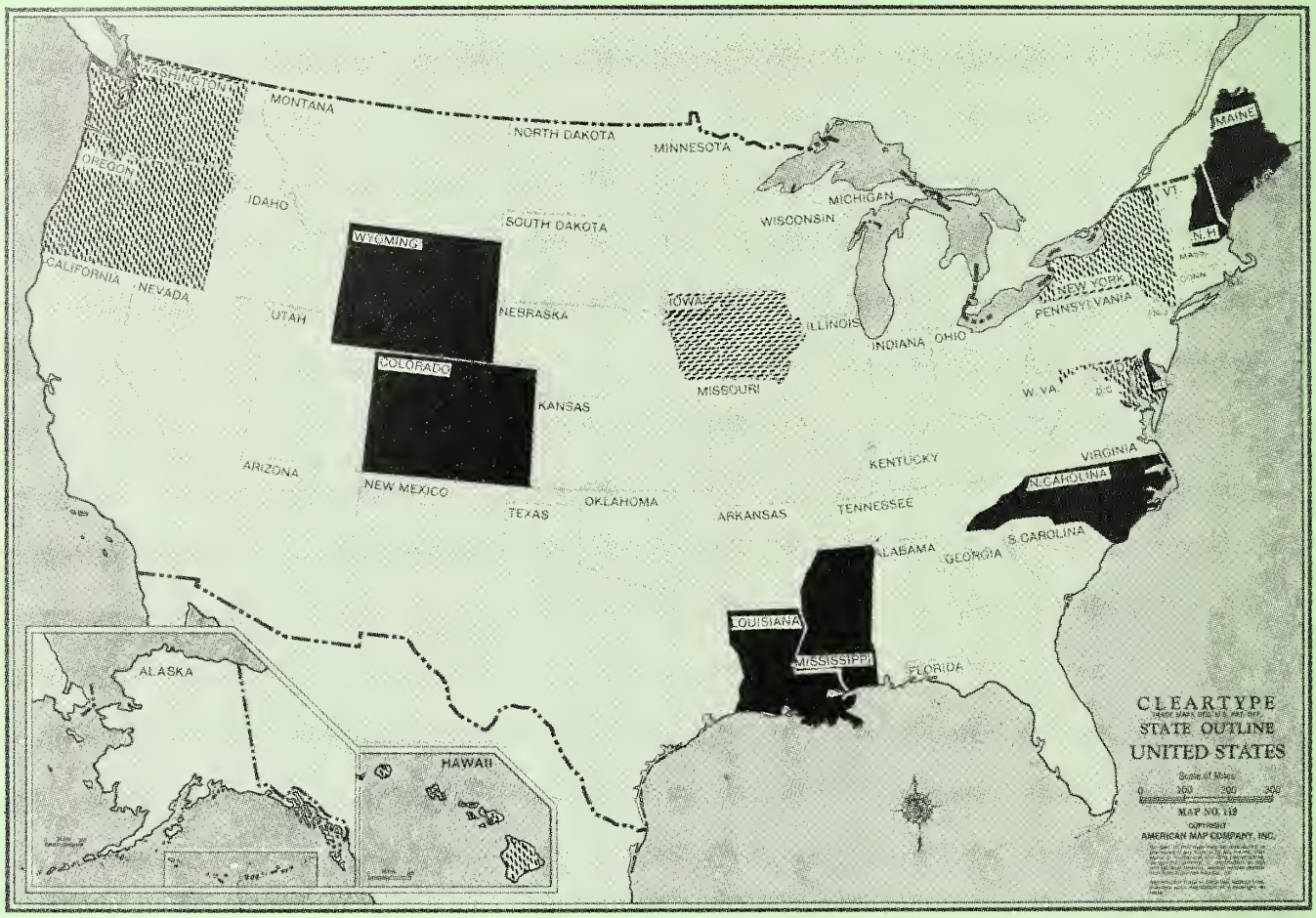
THE BILL CONTAINS IMPORTANT SAFEGUARDS

Senator David Stanley is the author of SF554. He undertook this work a few years ago in connection with his duties as chairman of a subcommittee of the Iowa State Bar Association's Committee on Corporations. The Iowa State Bar Association, acting through its Board of Governors, has endorsed this measure.

The stated policy of SF554 is "to preserve the established professional aspects of the personal relationship between the professional person and those he serves." Under its terms, a professional corporation could be organized only to engage in the profession which its stockholders are licensed to practice individually or in partnership. The corporation could practice only "through shareholders, directors, officers, employees and agents who are licensed to practice the same profession in this state."

Section 10 of SF554 specifically provides: "This Act does not modify any law applicable to the relationship between an individual practicing a profession and a person receiving professional services, including, but not limited to, any liability

PROFESSIONAL CORPORATIONS ARE ALLOWED IN 36 STATES
and Enabling Acts Have Been Proposed in Six Others



arising out of such practice and any law respecting privileged communications."

The House of Representatives bill on this subject (HF652) has been filed by Representative Pelton. It is a well-drafted measure, and it contains one provision in particular which physicians would like to see incorporated in SF554: *"This Act constitutes a limited and special exception to the salutary common-law principle which prohibits a corporation from rendering professional services, and it shall not be construed as an indication of legislative intent that the principle is unsound or that further exception should be made with respect to it."*

NOW IS THE TIME TO ACT

Until recently, a measure of this sort would have held out a possibility which professional people in Iowa could have realized only through extensive litigation, for the Internal Revenue Service has refused voluntarily to recognize even those professional corporations that were formed in accordance with state laws. Within the past year or two, however, federal courts have decided at least five cases in favor of professional corporations and against the IRS. Thus there are good prospects for their ultimate recognition by the federal taxing agency.

The accompanying map provides another indication of the need for prompt action. It shows that 36 of our 50 states (those shown in white) have already adopted professional corporation laws. All of the states surrounding Iowa have them. Six states (the shaded ones) have such proposals under consideration in their legislatures, and only seven (those shown in black) have as yet done nothing.

The existence of professional corporation acts in other states may induce some practitioners to leave Iowa in order to achieve the benefits of incorporation there. This has been no great problem thus far, but it may soon place Iowa at a competitive disadvantage in attracting and retaining professional personnel.

CONCLUSION

The Professional Corporation Act is not something that all practitioners will want to utilize. For various reasons, many of them will choose to stay in solo or partnership practice. In order to make a wise choice, each of them will need assistance from attorneys and other well-qualified advisors. Keogh plans can be expected to suit the needs of many of them. However there is a place for professional corporations in our society, and the General Assembly of Iowa can render a service to the professional people and their assistants by making this option available to them.



Personals



Dr. Alson E. Braley is resigning from the U. of I. College of Medicine to start private practice in Iowa City. Dr. Braley, head of the eye department at the school from 1950 to 1967, will begin practice after July 1. His new office will be located in the former Medical Associates Building at 227 North Dubuque Street, in Iowa City. After his graduation from the U. of I. College of Medicine in 1931, Dr. Braley specialized in diseases of the eyes. In 1941, he took a position at Columbia University in New York and remained there until returning here in 1950. Dr. Braley is currently the governor of the local Rotary district. He has been a director of the Iowa Lions Club Eye Bank since 1955, and will continue in that capacity.

Drs. Keith Garber and **Tom Davis** expect to build a medical clinic this spring on South Street in Corydon. The facility will cover approximately 3,375 square feet, and will house several examination rooms, offices, reception room, laboratory and x-ray, operating room and lounge. Dr. Davis, now at the Great Lakes Naval Training Station, will be discharged on or about July 1. He is hopeful the new structure will be ready for use soon after he reaches Corydon.

The West Central Mental Health Center which serves Madison, Dallas and Guthrie counties, was host to representatives of the personnel at all of the state's mental health centers and the Iowa Mental Health Authority at the Red Carpet Inn, in Perry, on Wednesday, February 12. Seventy-nine persons attended the all-day meeting which included the presentation of a plaque to **Paul E. Huston, M.D.**, for his faithful years of service to mental health. His address was entitled "Reflections on the Future of Iowa's Mental Health Centers." **Dr. L. K. Berryhill**, of Fort Dodge, gave a report on mental-health proposals under consideration in the Iowa Legislature, and a discussion followed.

Dr. Lee E. Rosebrook, of Ames, has been appointed to a one-year term on the Committee on Cancer of the American Academy of General Practice, the national family-doctor organization.

Dr. Addison W. Brown, a Des Moines obstetrician and gynecologist and past-president of the Iowa Division of the American Cancer Society, was the guest speaker at the Boxholm Parent-Teacher meeting held on Friday, February 21, at the Boxholm school building. The subject of Dr. Brown's talk was "Smoking" and he showed the film "Who Me?"

Dr. O. L. Frank, of Maquoketa, was honored at a public reception held on Sunday, March 23, in the lounge of the Richard Scott German wing of the Jackson County Hospital. The occasion was the fiftieth anniversary of his starting medical practice in that community. Dr. Frank graduated from the U. of I. College of Medicine on March 27, 1919. That unusual graduation date was accounted for by the World War I "summer step-up classes." He immediately joined his father-in-law in the practice of medicine in Maquoketa, and has remained there ever since.

Dr. Lawrence F. Staples, of Des Moines, a diplomate of the American Board of Internal Medicine and a fellow of the American College of Physicians, was inducted as a fellow of the American College of Cardiology on March 1 in New York City, at the organization's annual convocation.

Dr. James Hepplewhite, of Des Moines, and **Rev. Russell C. Striffler**, a chaplain at Iowa Methodist Hospital, Des Moines, were two of the guest speakers, February 27, at a dinner meeting for physicians and clergymen at Knoxville, sponsored by the Knoxville Ministerial Association. The discussion covered almost the entire range of topics mutually interesting to ministers and doctors.

On March 2 **Dr. L. L. Bowie** celebrated his ninetieth birthday at Zearing. He practiced there for 20 years, then spent two years on the staff of the Woodward State Hospital and School, next served for 10 years as physician at the Iowa Soldiers' Home, in Marshalltown, and when he retired, in 1961, he returned to Zearing, bought a lot and built a house. He is a 1905 graduate of the U. of I. College of Medicine, and a Life Member of the Iowa Medical Society.

At the March 4 meeting of the Scott County Medical Society, held at the Outing Club, in Davenport, **Dr. Charles A. Owen, Jr.,** head of clinical pathology at the Mayo Clinic, presented a paper on the evaluation of hemostatic mechanisms. He is a 1941 graduate of the U. of I. College of Medicine.

Plans are underway at Hedrick for an observance to be held in July for **Dr. F. C. Perkins,** who has served that community and a large surrounding area in southeast Iowa for 40 years.

Dr. and Mrs. John R. Scheibe, of Bloomfield, were in Louisville for a week at the end of February, where Dr. Scheibe attended a meeting of the American College of Surgeons.

Dr. Henry M. Perry, of Bloomfield, is heading the American Cancer Society's fund-raising campaign in Davis County this month.

Dr. Otto N. Glesne, who resigned from the directorship of medical services in the State Department of Social Services on February 15 after a tenure of about one year, has returned to Fort Dodge to become school physician there. He began medical practice at Fort Dodge in 1926, and was one of the founding members of the American College of Obstetrics and Gynecology. He was president of the IMS in 1961-1962; he moved to Northfield, Minnesota, in 1965, to head the student health service at St. Olaf College, and he came back to Iowa in 1967. **Dr. Elmer M. Smith,** of Eagle Grove and Des Moines, returned to the Social Services Department post when Dr. Glesne left. **Dr. Charles J. Baker** held the Fort Dodge public school position until last September.

On March 3 **Dr. Edward R. Annis,** a Miami surgeon and a past-president of the AMA, addressed a meeting at Club 64 sponsored by the Council Bluffs Chamber of Commerce and Western Securities, Inc., of Omaha. Beforehand, he told a reporter for the NONPAREIL: "Medicare did not solve the problems of the poor. There are about 5 or 6 million people over 65 who really need help, but through Medicare 8 to 10 million people who used to be able to pay their own medical bills are now having their bills paid by the taxpayer."

Dr. Alson E. Braley, a professor of ophthalmology at the U. of I. who is about to enter private practice in Iowa City, was given the 1969 merit award of the Iowa Society for the Prevention of Blindness, early in March. The Society's Medical Advisory Committee includes the following physicians: **Dr. Harry Alcorn,** Mason City, **Dr. Edward Anderson,** Davenport, **Dr. A. Reas Anneberg,** Carroll, Dr. Braley, **Dr. A. H. Downing,** Des Moines, **Dr. Joseph Dvorak,** Sioux City, **Dr. Charlotte Fisk,** Des Moines, **Dr. R. H. Foss,** Des Moines, **Dr. Frederick Fuerste, Jr.,** Dubuque, **Dr. Henry Gurau,** Des Moines, **Dr. P. J. Leinfelder,** Iowa City, **Dr. Gene Meger,** Cedar Rapids, **Dr. G. D. Phelps,** Waterloo, **Dr. Leland Prewitt,** Ottumwa, **Dr. James Reeder,** Sioux City, **Dr. Meredith Saunders,** Des Moines, **Dr. Russell Watt,** Marshalltown, and **Dr. A. C. Wise,** Iowa City. All of them, plus **Dr. Elizabeth Procter,** of the State Department of Health, and **Dr. Lou Fingerman,** Des Moines, are members of the organization's Board of Directors. **Dr. Eric Swanson,** Fort Dodge, and **Dr. Verne Schlaser,** Des Moines, are members of the Medical Advisory Committee but not of the Board of Directors.

A 20-page booklet entitled "Today's Facts About Arthritis" is available free, from the Iowa Chapter of the Arthritis Foundation, 914 Locust Street, Des Moines 50309. **Dr. William D. Paul,** of Iowa City, medical director of the organization, says: "Many Iowans do not know the facts that could save them and their families from the crippling of arthritis. Eighty-five per cent of the crippling effects of rheumatoid arthritis may be avoided with early diagnosis and proper medical treatment." He added that the disease is thought to afflict about 380,000 Iowans.

At a joint meeting of the Wapello County Medical Society and its Woman's Auxiliary, at the Ottumwa Country Club on March 4, **Dr. Christian E. Radcliffe,** a professor of dermatology at the U. of I. College of Medicine, discussed "Weirdo Skin Eruptions."

The Osage Medical Group is offering a one-year scholarship of $500 to a graduate of the high school there who "enters one of the medical fields," according to the February 27 issue of the OSAGE PRESS. The newspaper didn't make clear

whether the scholarship would be available to the recipient as a pre-baccalaureate student, or not until he or she began medical training, and indeed its phrase "one of the medical fields" is somewhat lacking in clarity.

The building-fund campaign of the Grinnell General Hospital started off well, early in March, when **Dr. H. R. Light** presented to the drive chairman a combination of cash and pledges totaling $52,500 from the physicians on the staff of the institution. A 90-bed addition is under construction, and the goal for the drive is $625,000.

Dr. Robert L. Mandsager, a Marshalltown general practitioner, gave the principal address in a promotion ceremony at the Evangelical Hospital School of Nursing, there, on February 7.

Governor Robert Ray has reappointed **Dr. James F. Speers** to the post of Commissioner of Health for a four-year term ending June 30, 1973.

Dr. John A. Dotterer, an Ottumwa radiologist, demonstrated isotopic scanning at a meeting of the Wapello County Professional Registered Nurses at the Ottumwa Hospital in mid-February.

Dr. Alan D. Patterson, of Knoxville, has been reappointed Marion County medical examiner, and **Dr. Stewart F. Kanis,** of Pella, has been reappointed as his assistant, both for two-year terms.

Dr. Clark N. Cooper, a surgeon who practiced until last year in Waterloo, was enthusiastic about his experience as a staff member of the hospital ship *Hope,* in Ceylon. He wrote to some of his Iowa friends: "One facet of the people-to-people project is not . . . well known, namely the land-based groups, such as at Kandy, 72 miles 'up country.' This is beautiful hilly country with an assortment of jungles, paddy lands, tea and coconut estates, yet highly populated. . . ." In the general hospital at the University of Ceylon, there were 1,800 patients, Dr. Cooper continued. "My part in surgery is divided between ward teaching of some of the 450 medical students and resident staff, and working in the operating rooms with the surgery faculty. . . . The fine-featured, eager sensitive students probably give me my greatest feeling of satisfaction, except perhaps for the patients, who feel that if a *Hope* person has said as little as 'Hello,' something good has occurred."

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BRONCHIAL DISTRESS

Dr. William W. Jones, a surgeon, recently joined the staff of the Kersten Clinic, in Fort Dodge. His boyhood home was in Ames and he took his baccalaureate at Iowa State in 1960. He got his M.D. at Iowa City in 1963, and interned and got specialty training at Latter Day Saints Hospital, in Salt Lake City. Dr. and Mrs. Jones have two children. The Kersten group also have a new clinic manager.

Dr. D. B. Drennan, who has been practicing in Fort Madison since July, 1966, was notified on February 8 that he has been certified by the American Board of Surgery.

Early in February **Dr. Robert E. Votteler,** a psychiatrist who heads the Mid-Iowa Mental Health Center, in Marshalltown, spoke to the Marshall County Child Study group on the topic "Parent Attitude—Possible Effect on Children." He has had a residency in pediatrics as well as one in psychiatry and child psychiatry.

It is reported that a bill has been proposed to the General Assembly of Iowa by **Representative Berl E. Priebe** (D., Algona) which, if enacted, would compel community mental health centers to reveal patients' names to boards of county supervisors. **Dr. L. K. Berryhill,** a Fort Dodge psychiatrist and head of the mental health center there, has said, "Disclosing names would wreak havoc with our program."

On January 29, **Dr. Dale Christensen** was named chief of staff at Stewart Memorial Hospital, Lake City. **Dr. Paul Ferguson** was named vice-chief, and **Dr. Ashton McCrary,** secretary. Dr. Ferguson was elected president of the Calhoun County Medical Society and its delegate to the IMS; **Dr. J. H. Faust,** of Manson, was named vice-president; and **Dr. J. C. Comstock** is the secretary-treasurer. **Dr. Charles Wilson,** of Manson, is the alternate delegate. Drs. Christensen, Ferguson, McCrary and Comstock practice in Lake City.

Dr. Robert L. Kent, of Fort Madison, **Dr. Norman K. Rinderknecht,** of Des Moines, and **Dr. Roy M. Pitkin,** an associate professor at the U. of I. College of Medicine, will be installed as fellows of the American College of Obstetricians and Gynecologists at the organization's annual meeting in Bal Harbour, Florida, April 28-May 1.

Dr. Richard Bausch, a Cedar Rapids obstetrician and gynecologist, has been elected to the Board of Trustees of Mercy Hospital there. He also is president of the medical staff of the institution.

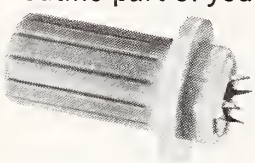
At the February 17 meeting of the Lake Mills Ambulance Service, the guest speaker was **Dr. S. M. Haugland.** His topic was "Poison."

Dr. Karl Larsen, an internist in private practice in Iowa City, spoke on the medical management of the coronary patient at a meeting of District 5 of the Iowa Nurses' Association, held at the Ramada Inn, there, on February 27.

In Oakdale on February 23, at a banquet marking the third anniversary of the establishment of the U. of I. alcoholism treatment unit there, **Dr. Robert Sedlacek,** a Cedar Rapids internist, gave the College of Medicine a portrait of his father, **Dr. Leo B. Sedlacek,** who retired a few years ago from his practice of psychiatry and in whose honor an annual award has been established for alcoholism research.

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Dr. Robert A. Ryan, of Fairfield, addressed the Wit and Wisdom Club, there, on February 21. His topic was the alcoholism problem.

On February 22, **Dr. L. D. Colbert,** of Royal, was awarded what is said to have been the largest damages ever ordered by a jury in the Fourteenth Judicial District of Iowa, as a consequence of injuries he sustained in a traffic accident near Spencer during 1966. He was attending an auto-accident victim at the edge of the highway when a woman saw him and slowed her car abruptly with the intention of asking the doctor to care for a sick passenger whom she had with her. The driver of a car that was too close behind hers catapulted her vehicle onto the doctor, shattering his left femur and causing other injuries.

The Mahaska County Hospital has taken its first steps toward the establishment of a coronary-care unit. A half-dozen of its nurses have begun taking the special training offered at one of the Area Community Colleges, and a policy committee has been formed, consisting of **Drs. L. J. Grahek, Sidney A. Smith, F. O. W. Voigt** and **J. L. Allen.** Equipment purchasing and room-remodeling remain to be done.

Dr. A. R. Powell, of Elkader, has been reelected president of the board of directors of Central Community Hospital there. The annual meeting took place on February 11.

The Burlington Hospital laboratory, where **Dr. F. D Winter** and **Dr. Ralph J. Rettenmaier** practice, has been accredited by the American College of Pathologists.

Dr. Norman Thede, of Britt, headed the fund-raising drive of the Iowa Heart Association in Hancock County during February.

Dr. Kenneth E. Lister, an Ottumwa surgeon and a member of the IMS Board of Trustees, was elected president of the Scanlon Medical Foundation on February 19, succeeding the man for whom the educational and philanthropic organization was renamed, **Dr. George H. Scanlon**, of Iowa City, who died on January 6. Two new members were elected to the nine-member board, **Lewis H. Jacques, M. D.**, an Iowa City general practitioner, and **Mr. E. Howard Hill**, of Minburn, formerly an officer and now a very influential member of the Iowa Farm Bureau Federation.

Two Vinton physicians, **Drs. J. E. Blumgren** and **G. A. Fry**, have been awarded 20-year certificates for their service to the Benton County draft board.

Dr. Robert Isham, of Osage, has been elected chief of staff of the Mitchell County Memorial Hospital. **Dr. W. E. Owen**, of St. Ansgar, is vice-chief and **Dr. R. G. Boeke,** of Osage, is secretary. The staff consists of 11 physicians.

Governor Robert D. Ray has appointed a Des Moines surgeon, **Dr. Howard G. Ellis,** to succeed the late **Dr. George H. Scanlon,** of Iowa City, as a member of the State Board of Medical Examiners. His term will expire on June 30, 1971. Dr. Ellis is head of medical education at Mercy Hospital, Des Moines.

Dr. R. E. Weland, a Cedar Rapids pathologist who heads the Linn County chapter of the American Cancer Society, reported to that organization, March 11, on a national conference on uterine cancer which had been held the previous week in New Orleans.

Dr. Robert J. Barry, a senior resident in dermatology at University Hospitals, was the guest

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speaker at the March 12 meeting of the Linn County Association of Medical Assistants, held at the Montrose Hotel, in Cedar Rapids. His topic was "Hair Specialty Transplants and Dermabrasion."

Dr. J. T. Mangan, of Forest City, took time to write a letter to the State Highway Department's district maintenance engineer in north-central Iowa, expressing his appreciation for the help provided by **Mr. Richard Wing,** the resident engineer at Forest City, in getting a patient to Mason City during the blizzard that closed roads throughout that area on the night of January 6. The patient had encountered obstetrical complications and needed a transfusion of a blood type that the Forest City Hospital could not supply. Mr. Wing arranged for a relay of snowplows to lead the way for the ambulance, and the trip took about two hours. Dr. Mangan credited Mr. Wing's efficiency with saving her life.

Dr. James Christensen, an assistant professor of internal medicine at the U. of I., has been given a Research Career Development Award by the USPHS. He was selected for it by the National Institute of Arthritis and Metabolic Diseases. His research has centered on the physiology of gastrointestinal smooth muscle, the activity of which may be involved in such prevalent conditions as peptic ulcer and inflammation of the intestinal tract and large bowel. He holds B.A., M.S., and M.D. degrees from the University of Nebraska, he took his specialty training at Iowa City, and he joined the U. of I. faculty immediately thereafter, in 1963. In 1965 he was named a Markle Scholar in Academic Medicine, which appointment provided the College of Medicine $30,000 to use over a five-year period on Dr. Christensen's behalf.

Dr. Rubin H. Flocks, head of urology at the U. of I., has been elected president of the Clinical Society of Genito-Urinary Surgeons, and **Dr. David A. Culp,** a professor of urology there, has been elected to membership in the group. The Society is limited to some 50 selected members of the most highly recognized urology departments in the nation. Dr. Flocks now heads three of the top national organizations in his field, for he also serves as president of the 2,000-member American Urological Association and the American Society of University Urologists. Dr. Culp has been an officer of the AMA Section on Urology for several years, and currently is chairman of the Section. He also serves on the executive committee of the North Central Urological Society, and he is a member of the American Association of Genito-Urinary Surgeons, which is limited to 75 urologists who have made outstanding contributions in their field.

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Monday, April 28—8:00 a.m.—5:00 p.m.

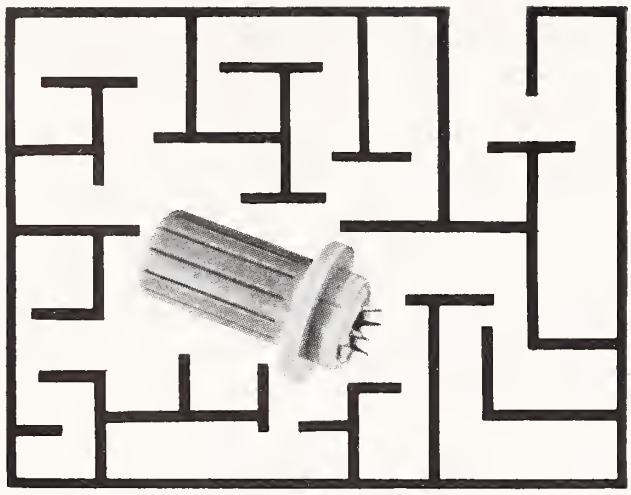
Tuesday, April 29—8:00 a.m.—5:00 p.m.

Dr. William C. Keettel, head of obstetrics and gynecology at the U. of I., has been chosen as president-elect of the American Association of Professors of Obstetrics and Gynecology. The organization is composed of the chairman of the department, plus one other faculty member, from each of the medical schools in the United States and Canada. Dr. Keettel presented a paper on "Residency Education for Community Practice" at the group's recent meeting in New Orleans. He just completed a term as chairman of the AMA Section on Obstetrics and Gynecology, and has held several other top posts in his specialty, including those of vice-president and one of the directors of the American Board of Obstetrics and Gynecology, president of the Obstetrics and Gynecology Residency Review Committee, and president of the Central Association of Obstetricians and Gynecologists, which has members in 29 states.

Two young Iowans are among the 98 students who have been given $1,000 medical-school scholarships during the 1968-1969 academic year by Pfizer Laboratories. One of the scholarships is available each year at each of the 98 American medical schools. The recipient is chosen, in each instance, by the dean of the school and a committee that he appoints. The Iowans this year are **Mr. David Russell Bakken,** of Iowa City, a senior at the U. of I. College of Medicine, and **Mr. Guillermo R. Mendoza,** of Grinnell, a 1968 graduate of Grinnell College and a freshman at the University of California Medical School at San Diego. The Pfizer scholarship program began in 1962.

Dr. Stephen Whitehead, a fellow in allergy and applied clinical immunology at the U. of I. College of Medicine, is one of 15 young physicians from throughout the nation who received travel grants from the American Academy of Allergy to attend its annual meeting, March 15-19, in Miami, and to participate in a special postgraduate conference on "Basic Concepts in Human Hypersensitivity."

Dr. Hans U. Zellweger, a professor of pediatrics at the U. of I., is currently serving as a visiting scientist at the National Institute of Neurological Diseases and Stroke, in Bethesda, Maryland. He received an award from the Muscular Dystrophy Associations of America to support his research there for three or four months. He is studying techniques in cell chemistry that he hopes will enable him to distinguish between specific muscle disorders such as the inherited type and other sorts of muscular dystrophy. "With the aid of these new diagnostic techniques," he predicts, "we can better advise parents about the possible course of their child's illness, and we can devise the most suitable therapeutic program for the child."



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Dr. Zellweger's research interests include areas of pediatric neurology, cell genetics and genetic diseases. He is the author of more than 250 scientific articles.

Dr. Emory D. Warner, head of pathology at the U. of I., was a visiting professor of pathology at the University of Arizona Medical School from March 10 to 21. He taught bone pathology to sophomore medical students. **Dr. Jack M. Layton,** a former professor of pathology at the U. of I., now heads the Department of Pathology at the University of Arizona.

Dr. Raymond R. Rembolt, director of the University Hospital School for Severely Handicapped Children, was a member of the AMA accreditation committee that inspected the occupational therapy program at the University of Texas Medical Branch, in Galveston on February 23 to 26.

Dr. Nicholas P. Rossi, an associate professor of surgery at the U. of I. College of Medicine, is one of seven physicians whose comments on methods of determining the curability of lung cancer were featured in the February 24 issue of MODERN MEDICINE.

The guest speaker at he March 5 meeting of the Johnson County Medical Society was the noted space scientist **James A. Van Allen, Ph.D.,** head of physics at the University of Iowa. His topic was "Where Are We Going in Space?" The meeting took place at the University Athletic Club.

Dr. Charles Johnson, an assistant professor of pediatrics at the U. of I., participated in the National Collaborative Study of Children Treated for Phenylketonuria, in Vail, Colorado, February 17 to 19. At the same place, on February 10-12, **Dr. George Baker,** an assistant professor of pediatrics at the U. of I., had addressed a conference on care of the newborn. His topic was the system devised by the Iowa State Services for Crippled Children for use in transporting such patients.

Dr. William E. Connor, director of the Clinical Research Center and professor of internal medicine at The University of Iowa, served on February 17 to 19 as a visiting professor at the University of Saskatchewan in Canada. He conducted a basic science seminar with students and interns, presented a symposium on "Fatty Acid Transport, Thrombosis and Heart Failure," and lectured on "Diseases of Cholesterol Decompensation" and "Malnutrition and Coronary Heart Disease: Is Prevention Now Possible?" He also met with hospital dietitians, selected teachers and clinicians, and held a special clinic for third-year medical students.

Dr. Sidney Sands, of Des Moines, has announced his intention of withdrawing from the private practice of psychiatry in order to devote more time to the operation of expanded psychiatric facilities and programs of Broadlawns Hospital. He will continue consulting with regard to private patients.

Dr. Mark Thoman, formerly a resident in pediatrics at Raymond Blank Memorial Hospital, will enter practice at 632 Woodland Terrace, Des Moines, on or about April 1.

At Iowa Lutheran Hospital's annual Medical Day program, on March 19, **Sheldon Waldstein, M.D.,** director of the Division of Medicine at Cook County Hospital, Chicago, spoke on "Modern Perspectives on the Diagnosis and Management of Gout"; **Israel Penn, M.D.,** an assistant professor of surgery at the University of Colorado School of Medicine, spoke on "Transplantation of the Liver and Kidney in Man"; and **Vaun A. Newill, M.D.,** director of the Division of Health Effects Research of the National Air-Pollution Control Administration, in Durham, North Carolina, spoke on the topic "Air Quality, Whose Responsibility?"

Deaths

Dr. Richard J. Peterson, 41, of Panora, died Tuesday, February 18, at Iowa Methodist Hospital, in Des Moines, after a long illness. Dr. Peterson came to Panora in 1954 and was associated with Dr. C. A. Nicoll in general practice. He was a member of the Masonic Lodge, Eastern Star, Lions Club, Dallas-Guthrie County Medical Society, Iowa Medical Society, and American Medical Association.

Dr. Nelle S. Noble, 91, of Des Moines, died at her home there on February 28, after an extended illness. She had practiced general medicine and obstetrics in the city for more than 44 years before retiring in 1949. She held both a law and a medical degree from Drake University, and served a term as president of the American Medical Women's Association. She aided more than 50 women students at Drake by granting them "character loans" to be paid back at their convenience.

Dr. Loraine W. Ward, 83, of Oelwein, died at a hospital in Independence on February 12. A 1913 graduate of the U. of I. College of Medicine, he practiced at Fairbank from the conclusion of his internship in Montreal until 1945. From that time until his retirement in December, 1968, he practiced in Oelwein.

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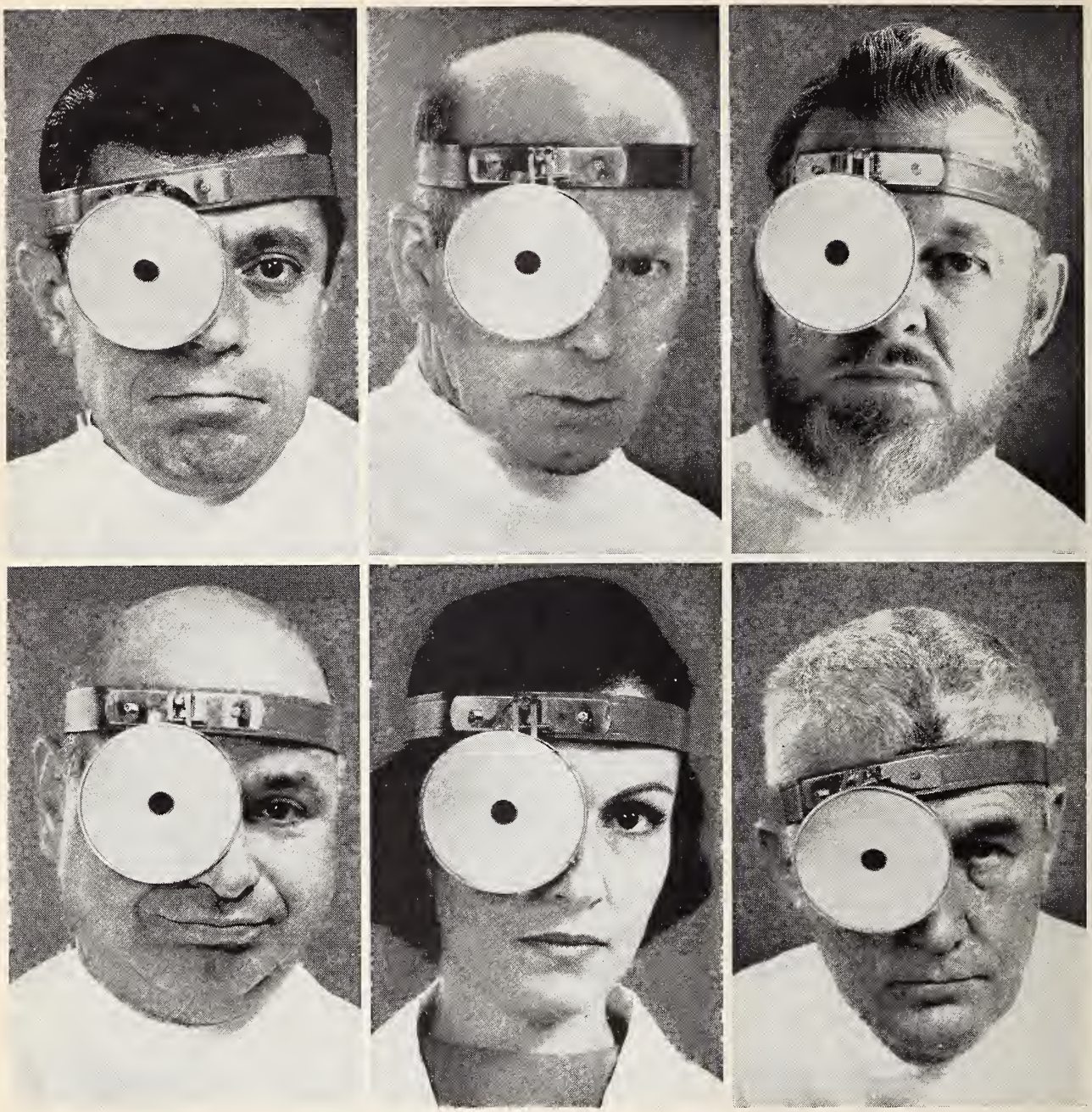
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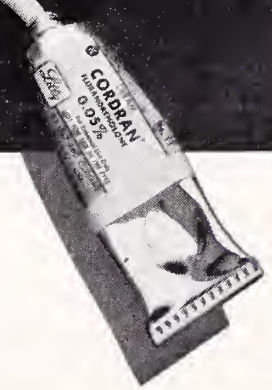
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- Automated Multiphasic Screening and Periodic Health Examinations—Leonard Morgenstern, M.D.
- Causes and Significance of Taste and Odors in Iowa City Water—Donald B. McDonald, Ph.D., Neil B. Fisher, M.S., and Keith R. Long, Ph.D.
- An Experiment in Community Medicine—Timothy G. Kling and Keith R. Long, Ph.D.

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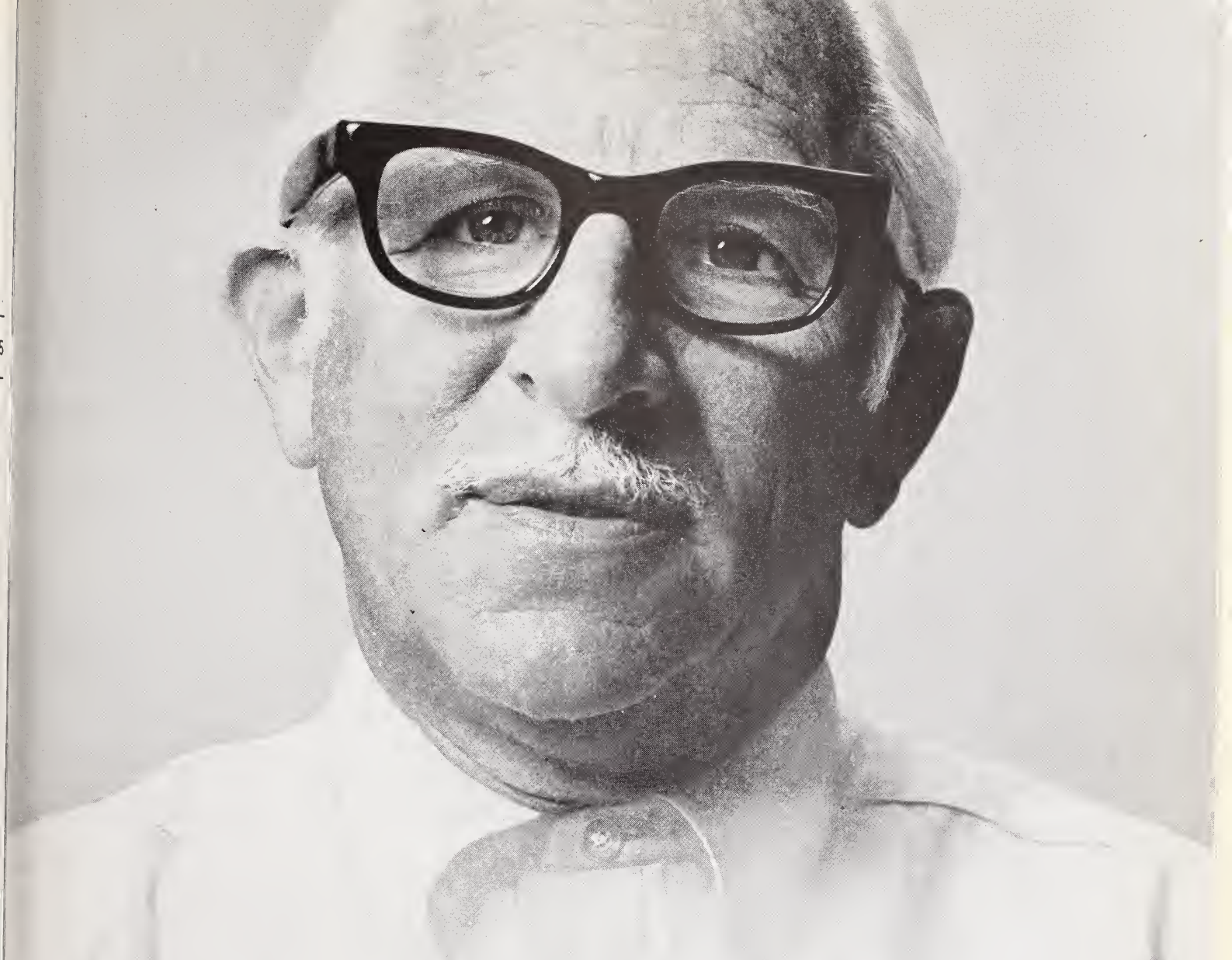
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Use in pregnancy: Because chlorthalidone may cross the placental barrier and appear in cord blood and thiazides may appear in breast milk, this drug should be used with care in pregnant patients and nursing mothers. When used in women of childbearing age, the potential benefits of the drug should be weighed against the possible hazards to the fetus. Use of chlorthalidone may result in fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult. Increased respiratory secretions, nasal congestion, cyanosis and anorexia may occur in infants born to reserpine-treated mothers.
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Take particular care in cirrhosis or severe ischemic heart disease and in patients receiving corticosteroids, ACTH, or digitalis. Severe salt restriction is not recommended. Use cautiously in patients with ulcerative colitis or gallstones (biliary colic may be precipitated). Bronchial asthma may occur in susceptible patients.
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The Month in Washington

Washington, D. C.—The Department of Health, Education and Welfare issued proposed regulations setting standards for rubella vaccine. Thus, possibly, it will be ready for distribution in limited quantities by about June 1.

The standards cover production methods, safety, purity and potency. They were developed by the Division of Biologics Standards, a unit of the National Institutes of Health. Final regulations could be published as early as May 3. Indications were that two manufacturers would have a vaccine ready for initial distribution soon after the regulations were made final. "This means that we are one step closer to the prevention of a disease that has caused an untold number of tragic births," HEW Secretary Robert H. Finch said when the proposed regulations were issued. "We are moving ahead to combat German measles in the quickest manner consistent with public safety."

The regulations apply to vaccines containing a live virus strain known as HPV-77, which is grown in either duck embryo or dog kidney cell culture systems. Experimental vaccines produced in accordance with the standards have undergone extensive community testing in the United States and abroad. Two manufacturers, Merck, Sharpe & Dohme, and Philips Roxane Laboratories have produced vaccines based on this strain.

"We hope that more than one vaccine will be available," Dr. Robert Q. Marston, the NIH director, said. "Regulations covering the use of other virus strains and culture media for rubella vaccine production will be formulated on the basis of extensive tests now going on."

Smith, Kline & French Laboratories has tested widely an experimental vaccine containing the Cendehill strain of rubella virus.

An HEW announcement said: German measles is a threat to susceptible pregnant women at any time, but the threat increases significantly during epidemic years. One of the most tragic and disastrous epidemics to hit the United States in modern times occurred in 1964-1965. It resulted in about 50,000 abnormal pregnancies, and about 20,000 infants were born with such crippling defects as mental retardation, heart disease, blindness and deafness. The remaining 30,000 pregnancies terminated in miscarriage or stillbirth.

* * *

The Food and Drug Administration has taken the first step to halt the marketing of 78 antibiotic combination products.

The ultimate action was recommended by the National Academy of Sciences-National Research Council, which is evaluating the effectiveness of about 3,600 new drugs marketed between 1938 and 1962.

Generally, the 78 products were found ineffective as fixed combinations for the purposes their labels said they would achieve. The FDA emphasized that its action does not necessarily mean that the antibiotics or other active ingredients contained in the products are ineffective when used alone. "But the use of two or more active ingredients in the treatment of a patient who can be cured by one is irrational therapy," said Herbert L. Ley, Jr., M.D., Commissioner of Food and Drugs. "It exposes the patient to an unnecessary risk. Antibiotics should be used like a rifle rather than a shotgun."

The majority of the 78 products are antibiotic-sulfa combinations in tablet, capsule, or liquid form. Also included are 16 penicillin-streptomycin combinations that are given by injection.

Other antibiotics used in the preparations include erythromycin, neomycin, tetracycline, chlortetracycline, nystatin, oxytetracycline, oleandomycin, and triacetyloleandomycin. In addition, some of the preparations contain analgesics, vitamins, or other ingredients.

Many of the affected products have been promoted widely and have found wide acceptance in the medical profession. Several of the manufacturers promptly said they would contest the FDA ruling, and others were expected to oppose it too. The manufacturers were given 30 days to submit any new data on the efficacy of the products.

There were 12 products in the first groups announced last December. A decision still was pending on whether manufacturers of those products should have additional time to submit evidence of efficacy.

The FDA can halt the marketing of antibiotic-containing preparations by deleting them from regulations listing the antibiotic drugs acceptable for certification. Unlike other drugs, antibiotics and insulin must be certified on a batch-by-batch basis before they can be marketed.

* * *

Two spokesmen for the medical profession asserted before a Senate subcommittee that the policies and scientific journals of their organizations are not biased in favor of the prescription drug industry because of the drug advertising revenue. Sen. Gaylord Nelson (D., Wis.), chairman of the

Senate Monopoly Subcommittee which is making a broad study of the ethical drug industry, had accused the medical journals of following the pharmaceutical industry's line to get advertising dollars. Both Dr. Edward R. Annis, a member of the AMA Board of Trustees, and Dr. Maynard I. Shapiro, president of the AAGP, emphatically denied the charge. Both cited the high, objective advertising standards of their organizations' publications.

"The American Medical Association's programs and policies have never been, are not now, and will never be shaped by any dependence on the drug industry," Dr. Annis said. "And to assure that there is no conflict of interest, the AMA has consistently separated the editorial management, advertising acceptance, and business management of each of its scientific publications. . . .

"We believe that no publication surpasses our own standards for acceptable advertising."

Senator Nelson sharply criticized the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION for the ads it carried on chloromycetin after the drug had been judged extremely dangerous. Dr. Annis acknowledged that "one Madison Avenue effort . . . slipped through the net" of AMA advertising standards. But he pointed out the various warnings on the drug carried in the editorial content of JAMA and other AMA publications.

"Advertising is screened by a group of physicians, all of whom we consider qualified to perform their task," Dr. Shapiro said. "We don't list the names of these physicians in our magazines because we believe they prefer a degree of anonymity. All are medical school faculty members and all, in our opinion, are well qualified to screen pharmaceutical advertising."

Dr. Shapiro also said that at least two drug firms had canceled ads in AAGP publications after they had carried editorials adverse to the companies.

* * *

The Nixon Administration recommended to Congress that the Hill-Burton hospital construction and improvement program be changed to permit block allocations of grant funds to states.

Since enactment of the first Hill-Burton legislation in 1946, federal grants for it have been earmarked for specific purposes.

In a statement to the House Health Subcommittee, Robert H. Finch, secretary of Health, Education and Welfare, said the nation's health needs had changed since the Hill-Burton program was started.

Today's needs, he said, are twofold:

—Modernization or replacement of existing and obsolete acute care facilities in the hospitals, and

—Expansion of other kinds of medical facilities to reduce the pressures on hospitals and help curb skyrocketing medical costs.

He recommended a $150 million annual grant authorization for construction, replacement or modernization of the most critical types of health facilities.

"Additionally, we recommend the removal of the existing Hill-Burton categories to provide a better balance of health-care facilities in the community by assisting those kinds of facilities which have traditionally been neglected or in short supply," he said.

Expansion of neighborhood health center programs also was recommended. The HEW statement said it was required to meet the health needs of the poor.

H. Phillip Hampton, M.D., Tampa, Fla., testifying for the AMA, said the AMA continues its long-standing support of the Hill-Burton program but believes that "the major need that exists today is for the improvement and effective use of existing facilities."

"Priority for modernization and the upgrading of existing facilities will lessen the strain on the available supply of health personnel needed to provide services obtained in hospitals and related facilities," he said.

The AMA supported a provision in one of the two Hill-Burton bills before the Subcommittee that would permit states to transfer funds from one allocation to another, providing "further elasticity to the transfer of funds from construction to modernization."

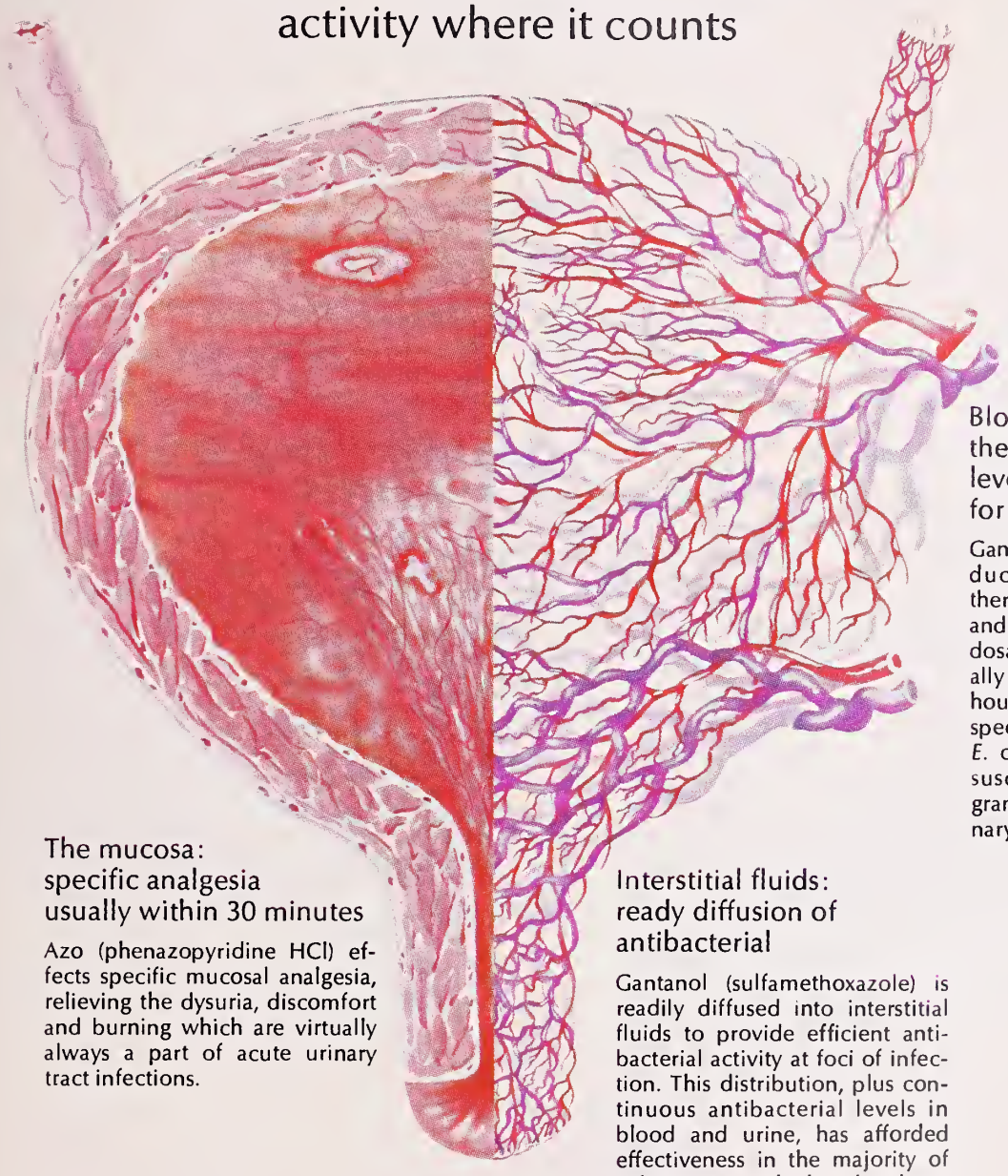
The AMA opposed as unnecessary the establishment of Hill-Burton priorities for construction or modernization of out-patient facilities or facilities to provide comprehensive health care. Such needs should be met through other laws already enacted, the AMA said. Dr. Hampton explained:

"We hope to make this point clear: We understand the part played by hospital outpatient departments in providing a place for necessary services to a community, and to the role played in teaching and training. But we believe that any need for outpatient facilities, separate and apart from the hospital, or for free-standing diagnostic and treatment centers—or whatever they may be called—can be met through other programs which provide federal assistance. The Hill-Burton program is not the appropriate vehicle for grants or priorities for such separated facilities. Nothing has been demonstrated which indicates either public benefit or public acceptance for this concept of providing ambulatory medical care through hospital operated, rather than physician operated, neighborhood clinics."

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Inner Sites...

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Blood and urine: therapeutic antibacterial levels within 2 hours for up to 12 hours

Gantanol (sulfamethoxazole) produces prompt and prolonged therapeutic levels, in both blood and urine, with convenient *b.i.d.* dosage. Clinical response is usually obtained within 24 to 48 hours. The wide antibacterial spectrum of Gantanol includes *E. coli* and a variety of other susceptible gram-negative and gram-positive pathogens in urinary tract infections.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Urinary tract infections with associated pain or discomfort when due to susceptible organisms; prophylactically in urologic surgery, catheterization and instrumentation.

Contraindicated in sulfonamide-sensitive patients, pregnant females at term, premature infants, newborn infants during the first three months of life, glomerular nephritis, severe hepatitis, uremia and pyelonephritis of pregnancy with gastrointestinal disturbances.

Warnings: Use only after critical appraisal in patients with liver damage, renal damage, urinary obstruction or blood dyscrasias. If toxic or hypersensitivity reactions or blood dyscrasias occur, discontinue therapy. In intermittent or prolonged therapy, blood counts and liver and kidney function tests should be performed.

Precautions: Observe usual sulfonamide therapy precautions including maintenance of an adequate fluid intake. Use with caution in patients with histories of allergies and/or asthma. Patients with impaired renal function should be followed closely since renal impairment may cause excessive drug accumulation. Occasional failures may occur due to resistant microorganisms. Not effective in virus and rickettsial infections.

Adverse Reactions: Headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, Stevens-Johnson syndrome, injection of the conjunctiva and sclera, petechiae, purpura, hematuria or crystalluria may occur, in which case the dosage should be decreased or the drug withdrawn.

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Azo Gantanol®

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Preludin is indicated only as an anorexigenic agent in the treatment of obesity. It may be used in simple obesity and in obesity complicated by diabetes, moderate hypertension (see Precautions), or pregnancy (see Warning).

Contraindications: Severe coronary artery disease, hyperthyroidism, severe hypertension, nervous instability, and agitated prepsychotic states. Do not use with other CNS stimulants, including MAO inhibitors.

Warning: Do not use during the first trimester of pregnancy unless potential benefits outweigh possible risks. There have been clinical reports of congenital malformation, but causal relationship has not been proved. Animal teratogenic studies have been inconclusive.

Precautions: Use with caution in moderate hypertension and cardiac decompensation. Cases involving abuse of or dependence on phenmetrazine hydrochloride have been reported. In general, these cases were characterized by excessive consumption of the drug for its central stimulant effect, and have resulted in a psychotic illness manifested by restlessness, mood or behavior changes, hallucinations or delusions. Do not exceed recommended dosage.

Adverse Reactions: Dryness or unpleasant taste in the mouth, urticaria, overstimulation, insomnia, urinary frequency or nocturia, dizziness, nausea, or headache.

Dosage: One 25 mg. tablet b.i.d. or t.i.d. Or one 75 mg. Endurets tablet a day, taken by midmorning.

Availability: Pink, square, scored tablets of 25 mg. for b.i.d. or t.i.d. administration, in bottles of 100 and 1000.

Pink, round Endurets® prolonged-action tablets of 75 mg. for once-a-day administration, in bottles of 100 and 1000. (B)R3-46-560-B

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For complete details, please see full prescribing information.

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She runs a good chance of losing weight.

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Preludin often puts a curb on appetite and promotes a sense of well-being. By boosting a dieter's spirit, Preludin may help patients get the exercise you may prescribe.

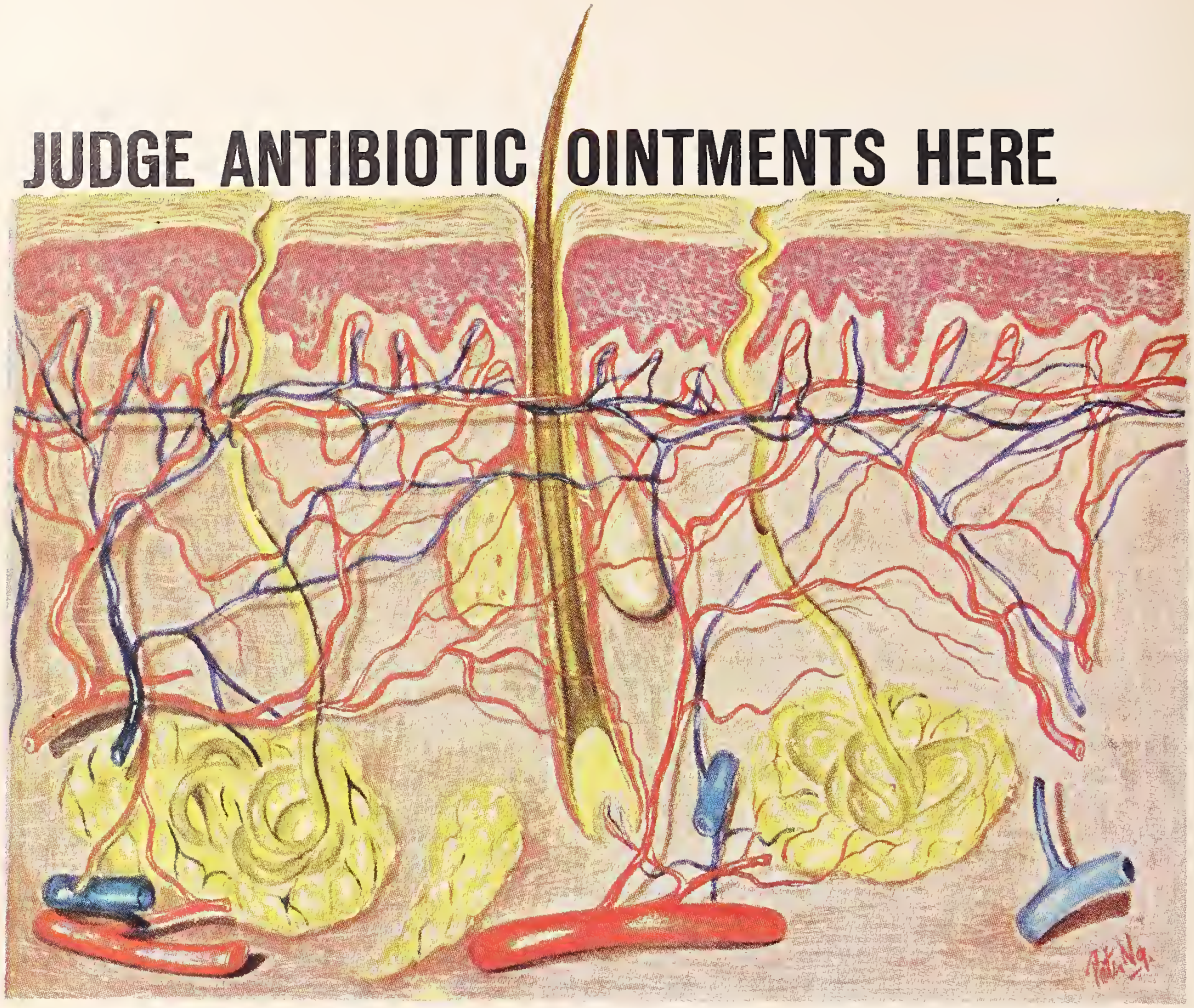
One Endurets tablet taken between breakfast and midmorning usually provides daylong and early-evening suppression of appetite.

A few patients may experience overstimulation or insomnia. For a brief summary of all adverse reactions, precautions, warning and contraindications, please see the adjoining page.

Preludin® phenmetrazine hydrochloride

Endurets® prolonged-action tablets

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Contraindications: This product is contraindicated in those individuals who have shown hypersensitivity to any of its components.

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COMING MEETINGS

IN STATE

May 5-9 **Postgraduate Course on Maxillofacial Trauma,** U. of I. College of Medicine, Iowa City.

May 7 **Annual Meeting of Iowa Thoracic Society,** Hotel Savery, Des Moines.

May 8-10 **Mid-Central States Orthopaedic Society,** Hotel Fort Des Moines, Des Moines.

May 10 **Human Transplantation,** U. of I. College of Medicine, Iowa City.

May 14-15 **Postgraduate Course on Surgery,** U. of I College of Medicine, Iowa City.

May 23-24 **Postgraduate Course on Vertigo,** U. of I. College of Medicine, Iowa City.

CONTINENTAL U. S.

May 1-3 **Symposium on Anxiety and Depression: Modern Interpretation sponsored by Mound Park Hospital Foundation and University of Florida College of Medicine,** Tides Hotel and Bath Club, Redington Beach, Florida.

May 1-4 **Annual Session, Texas Medical Association,** Hilton and St. Anthony Hotels, San Antonio

May 5-8 **Postgraduate Course on External Diseases of Eye sponsored by New York University Postgraduate Medical School,** New York.

May 5-9 **Postgraduate Course in Medical Technology sponsored by University of Colorado School of Medicine,** Estes Park.

May 7-9 **Symposium on Current Concepts in Clinical Oncology sponsored by New York University Postgraduate Medical School,** New York University Medical Center, New York.

May 5-6 **Genetics in Medical Practice,** University of Nebraska Medical Center, Omaha.

May 8-10 **Postgraduate Course in Pediatrics sponsored by Department of Pediatrics, University of Cincinnati,** Children's Hospital, Cincinnati.

May 8-10 **National Conference on Breast Cancer sponsored by American Cancer Society and Cancer Control Program, United States Public Health Service,** Shoreham Hotel, Washington, D. C.

May 12-13 **Postgraduate Course on Psychiatry and the General Practitioner,** University of Nebraska Medical Center, Omaha.

May 12-16 **Internal Medicine—The Good That's Old: The New That's Vital, sponsored by American College of Physicians,** Einstein Medical Center, Philadelphia.

May 12-16 **Postgraduate Course in Medical Technology sponsored by University of Colorado School of Medicine,** Estes Park, Colorado.

May 13-15 **Pesticides and Public Health. USPHS and FDA,** National Communicable Disease Center, Atlanta, Georgia.

May 15-16 **Postgraduate Course on Otolaryngology,** University of Nebraska Medical Center, Omaha.

May 17-21 **Annual Meeting of Medical Society of New Jersey,** Haddon Hall, Atlantic City.

May 19-22 **Adolescent Medicine sponsored by American College of Physicians,** University of Washington School of Medicine, Seattle.

May 19-23 **Intensive Care Units sponsored by American College of Physicians,** New York University, New York.

May 22-23 **Postgraduate Course on Diagnosis and Care of the Battered Child sponsored by University of Colorado School of Medicine,** Denver.

May 22-24 **Surgery and 14th Annual Trauma Day,** University of Nebraska Medical Center, Omaha.

May 29-June 1 **Third Triennial Congress on Medical and Related Aspects of Motor Vehicle Accidents,** Americana Hotel, New York.

June 2 **International Conference on Drug Abuse,** Americana Hotel, New York.

June 3-4 **International Conference on Poison Control,** Americana Hotel, New York.

June 7-10 **South Dakota State Medical Association,** Guest House, Watertown.

June 9-11 **American Neurological Association,** Beverly Hilton, Los Angeles.

June 9-13 **Internal Medicine: Clinical Application of Current Concepts,** University of Cincinnati Medical Center, Cincinnati.

June 11-14 **Neurology and the Internist sponsored by American College of Physicians,** Bowman Gray School of Medicine, Winston-Salem, North Carolina.

June 15-20 **Flying Physicians Association,** Lake Placid Club, Lake Placid, New York.

June 16-20 **Postgraduate Course in Crisis Counseling sponsored by University of Colorado School of Medicine,** Estes Park.

June 16-20 **Hematology for Internists with Emphasis on Recent Advances sponsored by American College of Physicians,** University of Rochester School of Medicine, Rochester.

June 23-26 **American Orthopaedic Association,** The Homestead, Hot Springs, Virginia.

June 23-26 **Valvular Heart Disease, The Basis for Selecting Treatment sponsored by American College of Physicians,** University of Oregon Medical School, Portland, Oregon.

June 28-29 **American Diabetes Association,** Hotel Roosevelt, New York.

June 30-July 3 **Postgraduate Course in Ophthalmology sponsored by University of Colorado School of Medicine,** Colorado Springs.

ABROAD

June 9-13 **Canadian Medical Association, 102nd Annual Meeting,** Toronto.

June 16-18 **Canadian Otolaryngological Society,** Winnipeg.

June 22-28 **23rd Assembly of World Medical Association,** Paris.

July 7-11 **Annual Scientific Meeting, British Medical Association,** Aberdeen, Scotland.

August 10-15 **6th International Congress on Chemotherapy,** Tokyo.



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Planning for Your Children's Education and for Your Retirement

GORDON P. BAIRD
Boston, Massachusetts

To START WITH, all of us agree that the most implicit and important ingredient in any financial plan that you might devise must be your ability to save regularly. One thing is certain: You'll never have to worry about how to invest your savings if you don't save.

Six thousand years ago this point was well covered by Arkad, the richest man in Babylon. On being asked why he had so much wealth, Arkad told of what he had learned when, in his youth, he had asked the same question of Algamish, a prosperous merchant. That wise old man had said, "I found the road to wealth when I decided that a part of all I earned was mine to keep. And so will you."

Arkad then went on to say: "I advise that you take the wisdom of Algamish and say to yourself, 'A part of all I earn is mine to keep!' Say it in the morning when you first arise. Say it at noon. Say it at night. Say it each hour of every day. Say it to yourself until the words stand out like fire across the sky.

"Impress yourself with the idea. Fill yourself with the thought. Then set aside whatever portion seems wise. Let it not be less than one-tenth. Arrange your other expenditures to do this, if necessary. But lay by that portion first. Then learn to make your treasure work for you. Make it your slave. Make its children and its children's children work for you!

"Insure an income for thy future. Look thou at the aged, and forget not that in the days to come thou wilt be numbered among them. Therefore invest thy treasure with greatest caution, that it be not lost.

"Provide also that thy family may not want should the Gods call thee to their realm. For such protection it is always possible to make provision with small payments at regular intervals. Therefore the provident man delays not in expectation of a large sum becoming available for such a wise purpose. A small return and a safe one is far more desirable than risk."

Now we all know that those words are as meaningful today as they were six thousand years ago. Nearly everyone who saves has at least two objectives: (1) to accumulate a reserve for emergencies during his productive years; and (2) to obtain investment income for his retirement years. Nevertheless most people do not plan an investment program to obtain those goals, and the few people who do it frequently follow their programs so haphazardly that hard-earned savings are just not invested to the best advantage.

TWO BASIC TRUTHS

In establishing the most prudent investment plan for retirement, and following it over a period of years, there are two important factors which you must understand. First is the growth of the U. S. economy, which is shown in Table 1. Note that throughout the past century, or thereabouts, it has doubled every 16 years, on the average. It accomplishes that feat by means of a compound rate averaging 4½ per cent.

TABLE 1

Industrial Production in the U. S. Doubled Between	
1871-1886	15 years
1886-1900	14 years
1900-1921	21 years
1921-1939	18 years
1939-1951	12 years
1951-1967	16 years
Doubled on Average Every	16 years

Mr. Baird is vice president of David L. Babson and Company, Inc., investment counsel. This paper is an updated version of a presentation he made at the 1968 annual meeting of the Iowa Medical Society.

TABLE 2

DECLINE IN THE VALUE OF THE DOLLAR

(a) The Value of the Dollar of
1900 is now 24 cents
1939 is now 41 cents
1950 is now 71 cents
1955 is now 78 cents
1960 is now 83 cents
Long-Term Annual Average Decline = 2.0%

(b) Value of the Dollar, 1939 = 100 cents

Cur.	40.7	1953	51.7
1966	42.6	1952	52.3
1965	44.0	1951	53.5
1964	44.6	1950	57.6
1963	45.5	1949	58.3
1962	45.8	1948	57.6
1961	46.5	1947	62.2
1960	47.5	1946	71.1
1959	47.6	1945	77.0
1958	48.0	1944	78.8
1957	49.3	1943	80.2
1956	51.0	1942	85.2
1955	51.7	1941	93.4
1954	51.5	1939	100.0

The second overriding force is the depreciation in the value of the dollar, which has gone on uninterruptedly throughout our history. Table 2 contains the official statistics. Note that the 1900 dollar is now worth only 24 cents; the 1939 dollar, 41 cents; the 1950 dollar, 71 cents; and note especially that the 1960 dollar, in just nine years, has already shrunk to 83 cents! However in terms of the ways in which you and I actually spend our incomes—the types of goods and services we buy—the dollar's purchasing power has been shrinking even faster than the official indexes suggest.

THE GROWTH-STOCK PHILOSOPHY

Now within this framework characterized by the shrinking of the dollar—a phenomenon which has been particularly evident since the middle-to-late 1930's—has sprung up what has become popularly known as the growth-stock philosophy of investing.

This growth-stock philosophy has become so popular that I should like to take a minute or two to define some of its principles. First of all, the basic premise of the growth-stock philosophy is that there are firms, and indeed entire industries, which can be relied upon to grow much faster than the entire economy does—that is to say, at an annual rate averaging in excess of 4½ per cent—and which give every indication of continuing to grow at that accelerated rate over the long term.

There are a great many methods of research and judgment which we utilize in establishing the validity of this growth and the likelihood of continued growth:

1. The industry must be a fertile one; good examples are the drug industry and the electronics industry.

2. We look for industries which are not subject to government regulation—especially to price regulation. This keeps us away from basic industries such as steel and copper, railroads, grocery chains and that sort of thing.

3. We want to find companies that have good profit margins and a good rate of return on invested capital.

Incidentally, the rate of return on invested capital is very important, especially in analyzing the pattern and making sure that a company which has shown an excellent return on invested capital will continue to do so. Sometimes one can get a very good clue that a growth company has ceased to be a growth company when all of a sudden it shows a declining trend in the rate of return on its investments. A very good illustration of this was the tobacco industry back in the late 40's and 50's.

TABLE 3

SUGGESTED DIVERSIFICATION OBJECTIVE

TECHNOLOGY, AUTOMATION & RESEARCH	40%
ELECTRICAL-ELECTRONICS	
DATA PROCESSING & OFFICE EQUIPMENT	
CHEMICALS	
DRUGS	
Nuclear Power	
NATURAL RESOURCES & MATERIALS	20%
OIL & GAS	
Forest Products	
Glass	
Metals	
Building Products	
SERVICES	20%
INSURANCE & FINANCE	
UTILITIES	
Merchandising	
Transportation	
Education	
CONSUMER GOODS	10%
Food, Beverage & Personal Care	
Leisure-Time Products	
CAPITAL GOODS & DURABLES	10%
Labor-Saving Machinery	
Transportation Equipment	

Subsequently, some of the better companies like R. J. Reynolds and Philip Morris were able to show better records than the industry as a whole, but the handwriting was on the wall very clearly, if you read the figures for the industry at that time. The same was true of the dairy industry in the early 50's. It may be true of the chemical industry right now.

DIVERSIFICATION

So that you can best understand how to invest for a retirement or education plan, I might outline in some detail the emphasis we place on certain growth industries and groups, and explain some of the reasons for emphasizing diversification.

We believe that in any growth account, 40 per cent should be invested in what we call technology or high-science and automation or research companies. This group would include electrical, electronics, office equipment and drug companies, and some selected chemical manufacturers.

We believe that about 20 per cent of a portfolio should consist of the stocks of natural resource and basic material companies, and in that group we place the petroleum, paper, glass, metals and building materials stocks, such as Georgia-Pacific and American Standard.

We also believe that a substantial part—actually about 20 per cent—of any portfolio should be committed to the stocks of firms which provide the services in today's economy such as life insurance, finance, growth utilities, and the publishing, vending and merchandising industries.

But to place the most important accent on the right syllable in investing for long-term benefits, I want to emphasize the principle of

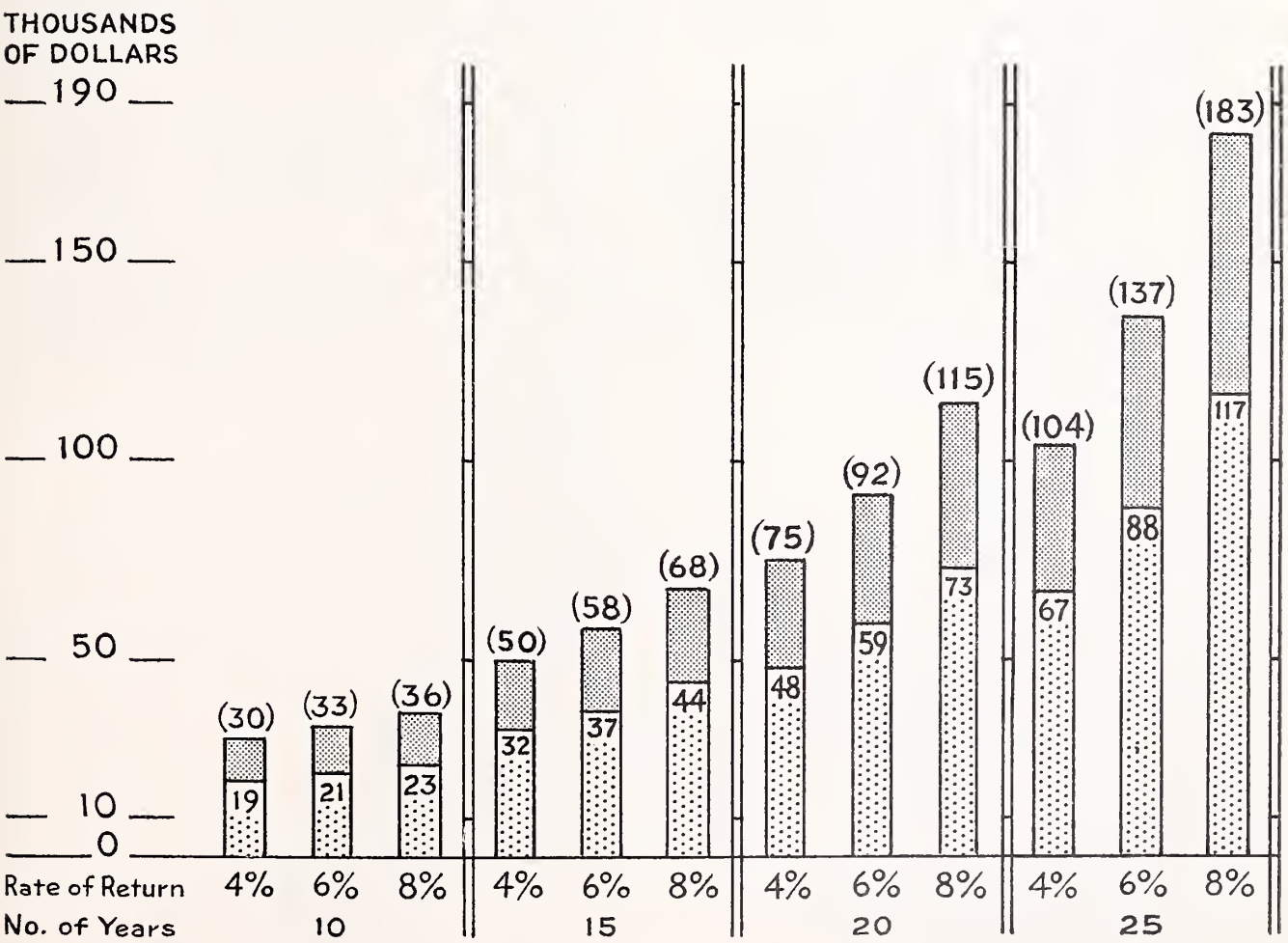


Figure 1. This contains projections of $2,500-per-year investments over periods of 10, 15, 20 and 25 years. The amounts enclosed in parentheses are the accumulations of untaxed dollars and compounded yields that are possible under the provisions of the Keogh Law. The amounts not enclosed in parentheses are the accumulations that are possible when the dollars are fully taxed.

compounding the benefits of an 8 to 10 per cent growth factor (including income and appreciation over a long period of time).

I shan't go into this in any greater detail benefits now available to doctors under the Keogh Law. With this tax exemption, buildups of untaxed dollars such as those set forth in Figure 1 are entirely possible. We feel that an 8 per cent growth factor, including reinvested income, can be attained if one uses growth-type equities such as I have described. In the accompanying tables and graph we have assumed that the entire $2,500 per year that is allowable, tax-free is actually invested. The amounts not enclosed in parentheses, in Figure 1, are the accumulations, together with compound interest, without the Keogh tax-exemption. The amounts enclosed in parentheses are those that are possible with the tax-free dollars. Using the tables and the graph you can, I hope, follow the logic of compounding growth over a period of time—obviously, the longer the better.

INVESTMENT VS. SPECULATION

I might also mention that in our work we see a great many individuals—and I confess that many doctors are included in that number—who are preoccupied with very short-term results, and do not treat their stocks properly. They frequently look upon them as a gambling medium, or as pieces of paper to be traded back and forth like names in a quotation table, and just as frequently they get caught in a "numbers game," rather than think of their long-term investment plan. Many are emotionally unsuited to stock ownership. When you think about it, the whole basis of our economy rests on the progress and activities of such major corporations as Dow Chemical, IBM, Eastman Kodak, drug companies such as Merck, Searle, American Home Products, etc., as well as on other obvious elements of the economic backbone of our country which happen to be growth companies. Yet many individuals buy such stocks and then go completely to pieces when the market value of the stocks they have purchased declines, after a year or so, to 20 or 30 per cent below the purchase prices. This reflects the lack of temperament or proper emotion that many investors have toward common stocks, and makes either an investment counselor or a mutual fund a very practical necessity if the individual is to live with an inflation-hedge type of program.

I shan't go into this in any greater detail because I think it is a very individual and subjective matter. In working out your plan, however, I want to point up the principles of long-term investing versus trading and the short-term "numbers game."

SUMMARY

1. Have a plan for saving, and stick to it. Remember the words of Arkad, in Babylon: "Say to yourself, 'A part of all I earn is mine to keep!' Say it in the morning when you first arise. Say it at noon. Say it at night. Say it each hour of every day. Say it to yourself until the words stand out like fire across the sky. Impress yourself with the idea. Fill yourself with the thought. Then set aside whatever portion seems wise. Let it not be less than one-tenth. Arrange your other expenditures to do this, if necessary, but lay by that portion first. Then learn to make your treasure work for you. Make it your slave. Make its children and its children's children work for you!"
2. Utilize investments in growth fields.
3. Recognize the importance of compounding an 8 to 10 per cent growth factor over a long period in an era of predictable inflation.

These are the highlights of the various investment concepts that we believe are most appropriate for you to adopt in framing inflation-hedge programs for your retirement and education funds.

AMA Judicial Council Rules on Physicians' Employees' Bonuses

May a physician pay his employees a year-end bonus based upon a percentage of his increased income for the year? No. A recently adopted AMA Judicial Council opinion states that although it is the practice of some physicians to reward their employees for their greater or more efficient services through the year, he may not promise them a bonus based upon a percentage of his increased receipts.

The Judicial Council emphasized that basing a bonus upon a percentage of receipts would constitute fee-splitting. A physician may, however, *take his increased receipts into consideration* in determining the amount of the bonus he wishes to pay, the Council said.

If you could put Tareyton's charcoal filter on your cigarette, you'd have a better cigarette.





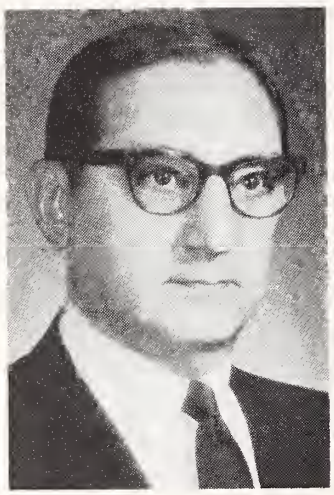
But not as good as a Tareyton.



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President's Page

Hire the Handicapped



An activity that interests me very much, and one that I hope to get many other IMS members concerned about, is employment of the handicapped.

It is a problem that physicians cannot solve by themselves, since they hire no more than a few assistants each. Rather, doctors of medicine can try, principally, to persuade their large-employer acquaintances to give special consideration to job applicants who have a chance of becoming efficient at tasks for which their respective handicaps are no impediment at all.

But doctors must not excuse themselves from direct responsibility. There are crippled young women of high intelligence who have had adequate training for medical-office or office-nurse work.

Wm M. Kingsley MD.

President

Scientific Articles

Technique of Total Hysterectomy

HOWARD ULFELDER, M.D.
Boston, Massachusetts

I DON'T BELIEVE you have to spend very much time in surgery, as a young man, before you come to recognize that some men have style—that you like to watch them operate. Usually you learn something from watching them operate, but you experience a certain spectator pleasure in just being there while they work. Conversely, there are certain men whose training is just as good and whose practices may be equally large, and who certainly have established themselves as prominent figures in their specialty, who somehow lack this particular gift, style.

Well I don't propose, today, to try to dissect this quality and define it, or even to try to teach it. I mention it because I think there are certain components in style which are important not only because of the gratification that they convey but also because they probably benefit the patient. I say this because I think that probably the most important single factor in style is a technique or a way of doing things which is conveyed by the surgeon to the team that works with him, even when the composition of the team changes frequently, as is the case in our modern teaching hospitals.

Dr. Ulfelder is chief of the Vincent Memorial Hospital (Department of Gynecology, Massachusetts General Hospital). He made this presentation at a postgraduate conference on obstetrics and gynecology sponsored by the U. of I. Department of Obstetrics and Gynecology, the Iowa Obstetrical and Gynecological Society, and the Division of Maternal and Child Health of the State Department of Health, in Iowa City on January 15, 1969.

TWO BASIC APPROACHES

Hysterectomy, I think you will agree with me, is the gynecologic surgeon's basic major procedure, and I think it is quite appropriate that I should speak to you of this particular operation. As I have gone around the country and watched men work, I have found it clear that there are two basic approaches to the performance of a hysterectomy. There are many variations, and each man is an individual in one way or another, but there are two ways of going about a hysterectomy. One method is to keep out of trouble by staying away from it, and this is the technique that stays right against the uterus and adnexa throughout. The individuals who practice this method do not lift and dissect a bladder flap; they do not expose the ureters; often they do not palpate the ureters. I was told on good authority that the man in New York of a previous era who had the largest gynecological practice boasted that he had never seen or felt a ureter in the course of his surgery. Obviously, he used this technique to perfection.

The other great category, in the technical approaches to hysterectomy, is the one in which you expose the area of trouble in order to stay out of difficulty. These, I think, are the two major approaches, not only to hysterectomy but to almost any other operation that we do. I am using hysterectomy as an illustration.

Now the first technique was quite appropriate in the era when speed was of great val-

ue to the patient. The faster the man got through the operation, the less likely were the chances of serious difficulties that would complicate the patient's recovery. It was an era when anesthesia was not so simple as it is today, and when relaxation often was not achieved. Therefore there was trouble in keeping the area packed off; there was often difficulty in closing the wound; and very often the anesthetist told the surgeon that he was going to have to lighten the patient because the respirations had become irregular. This technique was particularly appropriate in the era when the hysterectomy was a supracervical amputation, and obviously it lent itself very well to that procedure, for the uterus above the cervix is a button hanging into the peritoneal cavity, and it really was not very difficult, nor did it run into serious problems, to remove it very much in the way one might remove a wen, by just clamping and cutting and ligating close to this fundal mass.

These features, however, which gave rise to this technique no longer demand priority. It is no longer essential to the outcome of the operation for the surgeon to beat the clock. We have good anesthesia; we have relaxation. And therefore the advantages of the anatomic dissection and exposure approach have now become paramount. These advantages are as follows, if I may list them. First of all, you avoid trouble by visualizing the area in which it is likely that trouble will occur. Second, by this technique you minimize trauma and hematoma, and diminish the total amount of foreign body that you leave in the patient, in the form of massive ties and devitalized stumps of tissue. This technique vastly facilitates instructing others in the performance of this surgery, and facilitates demonstrating the local anatomy, which in itself, I am sure you will agree, is a great advantage. Finally, as I mentioned earlier, it offers maximum gratification to the surgeon and to the viewer. And obviously, in anything that you do a lot of, the happier you are with the way you do it, the better you are going to do it. This, I think, holds just as true of the man up the street, here, making cabinets, as it holds true of you in the operating room.

URINARY-TRACT INJURY IS THE MAJOR HAZARD

The risk of urinary-tract injury, I suppose, hangs like a great big sword over us whenever we step up to the operating table to do a hysterectomy. Everyone, from the most junior person at that table, is asking about the bladder and the ureters—where are they, and how do you keep from injuring them? I think this concern is appropriate. I think that without any question, although this is not the only complication that threatens us in the course of this procedure, nevertheless it is the most shameful one, let's say—the one that you are least able to explain away to the satisfaction of your friends.

The incidence of this complication during this kind of surgery has always seemed to me one of those curious facts which are well documented but which I still cannot believe. Where are all these women with injured urinary tracts? They must exist around us, if all the reports are correct. For there never has been a study done on the incidence of injury to the ureter or bladder during hysterectomy that didn't come up with a figure somewhere between 1.4 and 3.5 per cent. Now I don't think that two out of every 100 women who undergo hysterectomy have sustained damage to their urinary tracts. On the other hand, you can't get around the facts. Such figures have been reported not just once or twice, but many times. I have often wished that we could carry out such a study. Obviously, in order to be a fair examination of the question, it would require that every patient—every consecutive hysterectomy over a long enough period to provide adequate numbers studied—must have a preoperative and a postoperative urinary-tract examination which, at a minimum, would include pyelograms before and after. Perhaps it should also include cystoscopy before and after. Somehow or other, this has never seemed to me to be a justifiable experiment. Certainly our radiology department turned thumbs down on it right from the beginning. The radiologists will not allow pyelograms—particularly second pyelograms—on individuals who may have been sensitized to the dye at the initial injection. So from the risk involved, it has never seemed to me that I could carry out this study on our service. But on the other hand, without such an examination I am left with only the figures that have been reported in the literature. As I have already told you, they are figures which are documented and which I must believe, but which somehow I cannot

bring myself to accept. I just cannot believe that urinary-tract damage is as frequent in *our* cases, as it is said to be in everyone else's who has ever studied the question.

PRELIMINARY EXAMINATION UNDER ANESTHESIA IS MANDATORY

The technique of hysterectomy which I am going to describe to you today is one which singles out for special emphasis those areas in the dissection and those steps in the operation which carry a risk, and very frequently this is a risk of injury or compromise to the urinary tract. I think that as you follow the steps of this operation with me, you will see what I mean by this statement.

Preliminary examination under anesthesia is, of course, emphasized as a "must," by anyone who speaks on this subject. The reasons are too obvious to require repetition here. The interesting thing is how many hysterectomies are done in this country today *without* that preliminary examination under anesthesia. Actually, the pressure to minimize the length of time that the patient occupies an operating room has made us cut a lot of corners, and this is one of them. A busy community hospital, where the operating room must be used to capacity in order to justify the costs, is the place where you will see patients coming for hysterectomy with the bladder on Foley-catheter constant drainage. They are wheeled in; the abdomen is prepped and draped; and they are in! The patient doesn't have to be put up into lithotomy; neither a pelvic nor a curettage has to be done; the bladder doesn't have to be emptied; and all of this corner-cutting saves—you know how much time. That much time saved on every patient who has a laparotomy—a pelvic laparotomy—adds up to quite a few hours in the course of a week.

I think this is a consideration. On the other hand, in my opinion, it does not outweigh the disadvantages of the surgeon's not examining the patient preoperatively with the bowel empty, with the bladder empty and with sufficient relaxation induced by means of anesthesia so that he can accurately map out the pelvic structures before he does his laparotomy. Enough said!

It is just as important, of course, to explore the endocervical and uterine cavities. I don't mean to recommend a full-fledged curettage, but I do suggest enough of an exploration with an instrument, in intelligent hands, so that if there is a small unsuspected lesion present in either of those locations, it will be suspected. For suspicion is the essential first step in intelligent management of any medical or surgical condition.

THE RISK OF URINARY CATHETERIZATION IN WOMEN HAS BEEN EXAGGERATED

Finally, this question of emptying the bladder. I think this concern about occult, chronic, progressive pyelonephritis as a major illness in females, which Dr. Kass and people who have repeated his work have talked about, is another one of those curious facts that somehow are not borne out by clinical medicine as I see it. Where are these thousands of women who are slowly dying of unsuspected chronic pyelonephritis? Certainly women are much more susceptible to this disease without catheterization. Spontaneous or idiopathic cystitis, or call it what you will, is a very common occurrence in the female, and certainly the short urethra and the local trauma to which this area is subject are factors in the production of a great deal of mild infection. So there is a lot more involved in the likelihood of lower-urinary-tract infection than just the assault by a catheter. On the other hand, if this is such a big problem, then why do these ladies live six or eight years longer than we do, on the average? And what else are they dying of? This mystery resembles that of the supposed frequency of surgical injury to the urinary tract during hysterectomy. I am told that this is true, and yet as I look around me I am just not aware of it. It is a hidden fact in the community. I think that Kass and his disciples have rendered us a great service. I think they have pointed to the principle that nothing should be done to the patient that carries even a minimum risk, unless the advantages outweigh the disadvantages. Even putting in an intravenous drip must be weighed in that same kind of light and balance. But this concern about the introduction of organisms into the lower urinary tract mustn't take the bit in its teeth and run away, so to speak, to the point where we are often criticized openly by our students, by our nurses, by our internist colleagues, because we catheterize the bladder. This, I think, is an over-swing of the pendulum, and I am sure there isn't any one of you who doesn't feel exactly the way I do about that.

URINARY CATHETERIZATION SHOULD BE DONE RATHER SIMPLY

I catheterize the patient in the operating room, in the lithotomy position, as a preliminary to an examination and an exploration of the canal of the cervix and uterus. These are parts of my preparation of the patient for pelvic laparotomy. The catheterization which I do is a very simple procedure. In fact I have modelled it after the technique used by the student nurse learning how to catheterize a female patient. I am sure you have all seen this procedure. She is really not anatomically and physiologically instructed to the point where she knows just what she is trying to accomplish. She is afraid it is going to be painful or dangerous, so she usually dances up and wipes the meatus, jumps back and then wipes it again. Then she gets that catheter in and breathes a sigh of relief when a little urine starts running out of it. Then she gets out of there as fast as she can. It is sort of a touch-and-run technique. But I find in our hospital that this procedure is followed by infection less often than is any other catheterization that is done. The main reason for this, of course, is that it is done on healthy women without urinary-tract disease or infection. But it is also because the student nurse does not muck about. I don't like to see someone preparing the perineum as though he were scrubbing a kitchen floor, and then catheterize the patient, for I think he just milks a lot of soap suds into the meatus and then pushes it up into the urethra in front of the catheter. I think the student nurse does the right thing. She just wipes off the meatus and catheterizes, and that is what I do and what I try to teach the people who work with me to do. It's not that I think it is easier or faster, but because I think it is basically safer for the patient. But I do think that the surgeon wants to be certain that the patient's bladder is *empty,* before he does his laparotomy.

I have gone into a lot of detail about these things because I think they are what you want to hear me talk about. I think you want to know how I do a hysterectomy, not just why I do it or when I do it. I think this is what you want to know because it is obvious to me that the technical aspects of surgery will always be the most important factors in determining the success or failure of the procedure.

THE ASSISTANT AT SURGERY SHOULD APPLY TRACTION VIGOROUSLY

Obviously the next step after this preliminary examination is the laparotomy itself. I shan't say a word about incisions. I use a great variety of them. It is important, obviously, that the incision be such that it gives ready access to the pathology, and permits the surgeon to visualize the field directly as he does the operation. But I would never say that there must always be a median incision, or must always be a transverse muscle cutting, or any other type in all cases. I use the incision which I feel is appropriate to the individual case. I use a lot of transverse incisions, for it has been my observation that patients with this type of incision can get up and around more quickly and more comfortably, and if they have any tendency to develop respiratory problems—if they are smokers, for example—that they will be able to cough and clear their bronchi and bronchioles much more easily and much earlier in the game, after a transverse incision than after a vertical one. But that is not a new observation. It was described in a report of a cholecystectomy series many, many years ago.

As you watch a man operate, and feel that he is having difficulty and is struggling with the case, very often, if you stop and analyze what he is doing, you will recognize that he has not freed-up the viscera that he is trying to work on. This is the man who makes his incision, explores the patient, packs off the intestines, perhaps puts the patient in a little Trendelenburg, and then goes right after the pathology. Then things get in his way, and somehow he can't seem to develop control of the local problem. This means, to me, that he has failed to take one important preliminary step, and that preliminary step consists of the freeing-up of the structures on which he is going to work, and the applying of traction to the viscera he is going to work on. If there is one thing that makes a first-assistant superior to others is his recognition of the fact that the more tension he brings to bear at the point where the surgeon is trying to work, the easier the operation becomes for that surgeon. Give me an assistant who hauls on the uterus, rather than one who is trying to pick up for me or trying to show me where to go next. Of course he knows much better than I do what I should do next!

Dr. Richard Sweet, who was a very famous thoracic surgeon in our community, used to wear some little half-moon glasses. He had a habit with which everybody was familiar. Whenever he was confronted with a new first-assistant, from the resident staff, he would step back from the operating table and take a good, hard look at him over the tops of his glasses, and ask: "What is your name, doctor?" Then when he had been told that the young man's name was, let's say, Jones, he'd say: "Jones, do you know what my idea is of a perfect first-assistant? Jones, a perfect first-assistant is a fellow who *stays out of your way!*" Of course he was making a point, and overemphasizing it, but it was a pearl, too. Dr. Allen used to say that Dr. Sweet was such a magnificent surgeon because at one time he had been the best first-assistant in town. He thought that a man grew up from being the best first-assistant to being the best surgeon. I'm not sure that he was right, but he liked to think so.

Now how do you apply traction to the area being worked on during a hysterectomy? Well obviously you do it just by tugging on the fundus. So the first-assistant must apply some kind of handle. It may be two Kocher clamps on the cornual areas, or it can be one of these grasping things that hold the whole body of the uterus, or it can be a tenaculum if the case is not cancerous. It can be anything that you are used to using and that will enable you to pull firmly on the uterus without pulling out or tearing through the tissue. Such an implement obviously is a good handle.

The only trick that I can suggest using in this connection is that the apparatus should always be put on the top of the fundus, so that as you pull on the uterus you are pulling it in its own axis. This is no problem if the uterus with which you are dealing has essentially a normal shape, but very often the pathology has deformed the uterus markedly. It is tempting, sometimes, if there is a great big fibroid growing out of the front of the uterus, to put the tenaculum in the top of the fibroid. But then when you pull on it, you twist the axis of the uterus, and when the surgeon starts dissecting between the cervix and the bladder, he cannot work against the flat surface. Place your traction handles so that they pull the uterus right in its own axis, even though it seems to be markedly deformed. You will find that when the surgeon gets down lower on the body of this organ—when he really needs this traction—it will be pulled in a nice straight line.

This room is full of people who know all of these things, but I won't apologize for being so repetitious and so detailed, for even though you do know these things, it won't hurt you to hear them mentioned again—to hear them emphasized. And for those of you who don't know them, these points may be extremely helpful to you in perfecting your own technique. I believe that any young man learning how to do an operation watches and helps a number of other people as they carry out the same procedure, and then he starts doing it in the way that looked best to him. In other words, the first technique that a young man uses in surgery is the one he admired most in his teachers. But if he is any good at all, he starts modifying that method as soon as has gained a little experience, and after about 10 years he will be doing *his own* operation—a modified and improved version of the one that looked best to him when he was in training.

IT IS ESSENTIAL TO EXPLORE THE ABDOMEN

One final point before I get into the details of technique of the operation itself. It has to do with exploration of the abdomen. I think your patient will expect you to know, after you have done a hysterectomy on her, whether she has gallstones, whether her appendix is likely to give her trouble, whether she has two kidneys, whether there is evidence of old scaring around the duodenal cap—all of these things which you can determine by means of a careful exploration of the entire abdominal cavity. I think it is very important for *you* to know these things, for every so often a patient will get into trouble postoperatively, and her symptoms will be mysterious and apparently unconnected with the disease for which you operated or with the procedure that you carried out. And if the patient has a gallbladder full of small stones and you didn't find that out, then obviously it may take longer for you to arrive at the correct diagnosis and the correct treatment for that condition than would otherwise have been the case. I feel, therefore, that any patient on whom a laparotomy is performed for a disorder which does not contrain-

dicate exploration of the abdomen should have it done, and the time at which it should be done is at the beginning, at the time that you open the abdomen. That is the time for exploration. In fact in many situations you would prefer to do this before you disturbed the pelvic structures, assuming, for example, that the patient has, or may have, endometriosis, chronic pelvic inflammatory disease (P.I.D.) or some other condition which you would rather not have "busted into" before you carry your hand into the uncontaminated upper-peritoneal cavity.

THE TECHNIQUE OF HYSTERECTOMY PER SE

I have already said that I believe that the hysterectomy operation today should be an anatomic dissection, with exposure of danger points. The first step in this dissection is the elevation of a bladder flap of peritoneum. That immediately demonstrates the position of the urinary bladder—the point at which it is reflected off the anterior uterine wall and broad-ligament surfaces—and coincidentally it opens up the lateral aspects of the pelvic retroperitoneal space in the vicinity of the uterine vessels, the ureters and the iliac vessels. A short incision is made through the peritoneum of the anterior leaf of the broad ligament, and then this is exploited, either with blunt dissection or with sharp dissection with scissors if you wish. The same procedure is performed on the other side. The bridge of peritoneum between those two is then incised, with the bladder under direct vision. This technique, obviously, takes advantage of the fact that the bladder is highest in the middle and farthest beneath the surface on the two sides. Having cut this bridge, you then have a bladder flap of peritoneum with the bladder demonstrated, and the broad-ligament structures visible on both sides. Then with your hand—thumb forward and fingers behind—by a pill-rolling type of motion, you can actually develop, by blunt dissection, and enlarge the space between the bladder and the anterior surface of the uterus.

Now the first point at which you approach the ureter closely is obviously the point at which you put your ligature or clamp across the tubo-ovarian pedicle. It is here, of course, that you take your first step to avoid injury to the ureter. By exerting traction on the uterus and elevating the adnexa, the first-assistant throws this infundibulo-pelvic ligament into very sharp relief. Then you put your stitch, or your clamp if you prefer, up high on it, rather than down on the pelvic wall where it runs very close to the ureter. So the first point of potential hazard to the ureter can be avoided by not letting these structures hang down, and by trying not to clamp them or suture them *against* the pelvic wall, but by holding them up and getting them well enough away from the pelvic wall so as to make this risk negligible.

The next important point, of course, is that of incising the posterior leaf of the broad ligament, and not injuring the ureter which runs along the base of it. It is my custom, before I pick up the scissors and take this step, to open up the space a little bit farther—perhaps even putting a narrow Deaver retractor in, to bring it more into view. There is a space just lateral to the uterine vessels and just medial to the iliac vessels, which can be exploited with rapid, blunt dissection and which will carry you down practically to the levator muscles. It is in this space, of course, that the major dissection is done in the radical hysterectomy for carcinoma. The beauty of it, of course, is that it immediately separates the medial peritoneum, with the attached ureter, from the lateral structures. And having opened this up, you can just put your finger in there, and put your thumb in the cul-de-sac and bring them together. Then as you withdraw you will feel the snap of the ureter between your fingers. The hypogastric artery is also in that same area and can be confused with the ureter occasionally, but not by an experienced surgeon. So at this point it is possible easily to identify the ureter as it runs along this peritoneum, and then incise the peritoneum down to an area where it is safe to do so. Here you see palpation of the ureter after this incision, but I have found it easier to do this dissection and palpation before I cut the peritoneum, because there is more tension on this medial leaf at that time.

Now the next point of concern for the ureter is in the region of the uterosacral ligament, and for this reason we get them separately from the cardinal ligaments, and from the uterine. There is another advantage in this—that it makes each of these pedicles smaller. And obviously the smaller you make these pedicles, the more successfully your clamp will

hold them, and the less likelihood there is of your losing part of the pedicle when you substitute a suture ligature for your clamp. It is for that reason, therefore, that we separate out the uterosacral ligaments, at this point, to apply clamps separately, and then to replace the clamp with a suture ligature.

Having cut both uterosacral ligaments, at the point where they are reflected off the back of the cervix, one then incises the peritoneum between them. Then easy, blunt dissection strips the peritoneum off the back of the cervix and upper vagina, down to the point where the rectum can be seen. This step permits the uterosacrals to be secured without danger of injury to the ureter, and it also then allows the peritoneum, with the uterosacral stumps and the ureters, to be dropped down so that they are truly out of harm's way for the remainder of the operation.

The uterosacral ligament is not always clearly visualized, but I think that in cases where there is no extensive scaring, traction on the fundus by means of the tenaculum will usually show these ligaments pretty clearly. The important thing, of course, is to recognize where the ureter is and not to allow the clamp to grab too far laterally. The way I avoid that risk is by opening the clamp, applying the lateral half of the blade close to the uterosacral, and then letting the medial half slide over and crunch it. So you open the clamp medially, and don't allow the lateral blade to get over into the danger area close to the uterosacral ligament.

The next step, of course, involves securing the pedicle of the uterine vessel, and continuing the dissection which frees the bladder from the cervix and from the broad-ligament structures. Traction is the most important single maneuver in accomplishing this safely. Traction on the fundus of the uterus and traction on the bladder upwards by means of a blunt forceps will demonstrate the plane of cleavage very easily, and allow you to exploit it with scissors so that the uterine vessels are unroofed and the bladder is well down below the level where you are going to apply any future clamps. The uterine vessels have been secured, and now the clamps are applied to the lateral mass of support below the uterine vessels which is called the cardinal ligament.

There actually are a number of techniques used for securing the cardinal ligament. It doesn't matter whether you put one clamp right beside the cervix, like a Heaney or a Ballantyne, or even a Kocher, or whether you use multiple bites. The important thing about securing the cardinal ligament is that you have freed the front of it by dissecting off the bladder; you have freed the back of it by separating off the uterosacral and the peritoneum, so that you have a rather flat attachment of structures here; and your clamps can easily manage it, without losing part of the bite from the clamp as you lift it, or without losing part of the bite as you replace the clamp with a ligature. I think it is always important to leave a little tissue protruding from the clamp, when you are working down around the cardinal ligament in a patient without cancer. In this situation any clamp may occasionally lose a little bit of its grasp on the tissue, particularly if it is an old clamp, and leaving a little cuff protruding from it on the side where you cut across, I think, is a bit of insurance against difficulty. Once you have cut through the last of the cardinal ligaments on both sides, you have the uterus and cervix attached only by the vagina.

At this point, you determine how much vaginal cuff you feel should be removed in the individual case. In a patient with fibroids or P.I.D. or endometriosis, it obviously is unnecessary to remove any vagina at all. On the other hand, it is important to remove all of the cervix, since it is the cervix that is susceptible to later disease. For this reason, as an intelligent way of training men to do this operation, I have always suggested that the clamps which are placed across onto the vagina be sufficiently far below the cervix so that when the uterus has been removed a little rim of vagina can be seen all the way around the cervix—not just in front and in back, but all the way around. And if you train your young men always to have a little bit of vagina visible in the specimen, then they aren't going to do inadequate procedures in patients who prove, unexpectedly, to have Ca *in situ* of the cervix, or something of that sort.

The area where the bladder is dissected off the cervix is another one where people get into trouble. Actually the single most frequent cause of vesicovaginal fistula today, in our country, is injury to the bladder at this point

during the course of simple total hysterectomy. It has now replaced obstetrical trauma as the recipient of that dubious honor. I don't know why this is so. I doubt that it is due to a traumatic tear or incision into the bladder during the course of this dissection. I think that in most cases it is result of a suture which has gone through the bladder in the course of closure or reperitonealization, and a fistula's developing in the site where the bladder has been perforated and necrotized by the suturing and the tying. Nevertheless, whatever the cause, it is obviously important to visualize carefully this point of separation between bladder and cervix.

In many clinics this is handled by a technique you have heard referred to as intrafascial hysterectomy. The intrafascial-hysterectomy technique involves making a transverse incision through this rather well-defined fascia-like layer overlying the cervix at the point just below where the internal os would be, and then dissecting under that fascia, in order to separate the cervix from the bladder over it, and applying your clamps inside. This is a well-recognized, widely-accepted and, I think, very useful technique. It is, however, an approach to the operation which more closely resembles Style No. 1—staying out of trouble by keeping away from it—rather than Style No. 2, which involves exposing the area of trouble. But never hesitate to use intrafascial dissection to get out the cervix if there is any question whatsoever about adherence or some other local factor obscuring the plane of cleavage. In the usual case, however, where the plane of cleavage between bladder and cervix and vagina is well defined and easily demonstrated, with proper exposure and traction, I do not feel that the intrafascial technique is necessary. And I have said, it is a variant of the Style No. 1 approach—to stay away from trouble, or to stay as far away as possible from potential trouble.

The handling of the vaginal cuff, obviously, is dealer's choice. You can close it; you can partly close it; or you can leave it open. For many years we have left it open. We have put an over-and-over stitch around the cut end of it in order to control those little bleeders that are there, but we leave it open not with a wick, and not really open in the sense that you can look down it, but open because it allows for the drainage of any little accumulation of serum and blood that may develop postoperatively in this area. I don't, myself, feel that it makes any difference whatsoever, whether you open it or close it. Do be consistent, though. Have a good reason for what you do, and be consistent about it.

We suspend the vagina to the uterosacral ligaments because we believe that the best support of the vault is offered by a strut that pulls the vaginal apex back into the hollow of the sacrum, which is where it normally lies. We attach the round ligaments to the corner of the vagina, or not, as we see fit. We do not feel that the round ligaments support the vagina; we think the uterosacral ligaments hold the vagina where you want it. And we make a great point of picking up these uterosacral stumps, putting a stitch into them, and then into the vaginal corner. Then, as I have said, whether or not the round ligaments are incorporated in that is a matter of personal choice. It certainly facilitates reperitonealization of the pelvic floor if the round ligaments are tacked down, but I face the facts that I do this to carry out reperitonealization, not to hold up the vaginal apex by means of the round ligaments.

We don't drain, of course. I don't know of anyone who drains unless there is a pretty good reason for doing so. I think there are some situations where it is *un*desirable to drain. I wouldn't drain for example in a patient with carcinomatosis peritonei from the ovary, for fear of establishing a malignant tract right down and out through the vaginal apex. I would be unlikely to drain in a patient with endometriosis in whom the operation had failed to remove all ovarian tissue. I probably would drain only when there was steady oozing or when there was enough sepsis present to make me worry about the likelihood of a postoperative abscess developing.

Well, gentlemen, those are the points I wished to make. I think I should apologize for having gone into this petty detail in discussing with you a procedure which I am sure most of you do regularly, and which many of you probably do better than I. But if you wanted to hear what I think about the technique of total abdominal hysterectomy, you have heard it.



Each of Us Has a Responsibility for

Keeping Young People From Misusing Dangerous Drugs

The drug-abuse problem is a very serious one nationally, and there is no reason to suppose that Iowa can continue relatively immune to it. Extremely few narcotics users are being cured through the methods now in use. Many are jailed and some are hospitalized, but the vast majority eventually go back to their drug habits and are completely worthless both to society and to themselves.

The numbers of drug-dependent individuals are increasing constantly, despite the fact that arrests for drug addiction have increased 774 per cent over the past eight years, according to Mr. John Ingersoll, director of the newly established Bureau of Narcotics and Dangerous Drugs, in the U. S. Department of Justice.* Addressing a meeting of the National Coordinating Council on Drug Abuse Education and Information, in Washington, D. C., during February, he declared: "We are not apprehending enough drug peddlers, and we are not rehabilitating enough drug abusers." He estimated that there may be more than 65,000 narcotics addicts in the United States, and since there are approximately 200,000,000 people in the country, his educated guess figures out to one drug-dependent individual among every 3,075 of our fellow Americans.

The problem has other important ramifications. A large share of the thefts—robberies, burglaries, sneak-thievery and even shoplifting—and much of prostitution nowadays can be attributed to the drug problem, because a drug habit may cost as much as $50 per day to maintain, and the addict will do anything to lay hands on that money. And because the prevalence of venereal disease depends in part on prostitution, it is likely that some cases of gonorrhea and syphilis can be blamed indirectly on narcotics.

Young people constitute potential new customers for the narcotics "pushers," and the one best way to combat the drug problem is for each of us to consider it an important part of his mission in life to persuade youngsters to resist. In a number of cities throughout the state, as "Personals" items in recent issues of the JOURNAL have reported, individual physicians have teamed with local chiefs of police and other civic leaders in presenting the hazards of drug abuse to high school students on numerous occasions. Next October, the Iowa Health Council is to conduct a statewide Symposium on Drug Abuse, in Des Moines, for representatives from high schools, colleges, church youth groups, law-enforcement agencies, news media and other interested organizations. The institutions and groups just referred to total 4,946, and if all of them send representatives—as indeed they should —Veterans Memorial Auditorium is the only building that can accommodate them.

The Iowa Health Council consists, at present, of the Iowa Pharmaceutical Association, the Iowa Nurses Association, the Iowa Hospital Association, the Iowa Medical Society, the Iowa Veterinary Medical Association, the Iowa Dental Association, the Iowa Nursing Home Association and the Iowa Society of Osteopathic Physicians and Surgeons. The meeting at Des Moines in October is sure to be worthwhile. It is probable that, like a similar

* AMA NEWS, February 24, 1969, and SOCIAL HEALTH NEWS, March, 1969.

gathering in Wisconsin a few months ago, the speakers will include two or three ex-addicts from Encounter, Inc., a rehabilitation agency in New York City.

IMMEDIATE, SMALL-GROUP, LOCAL MEETINGS ARE ESSENTIAL

But October is months away, and there are some ways in which we, as individuals, can take the lead in our respective communities between now and then. A "Drug Abuse Information Kit" has been prepared by the AMA Program Services Department, containing among other things a superb address entitled "You, Too, Can Be a Social Dropout" for physicians to deliver at any youth-group meetings to which they can gain access. The introduction contains bits of humor that will put the speaker and his hearers at ease with one another, and enable him to teach without a semblance of condescension. Doctors who want the entire kit should request it from Mr. James R. Hickox, at the AMA, 535 North Dearborn Street, Chicago 60610. Those who wish just the speech can obtain copies of it from the IMS JOURNAL.

Myriad substances are capable of being overused, misused or abused. Some of them are medicinals, and others are not. Those having medical uses include (1) the narcotics morphine and codeine; (2) sedatives or central-nervous-system depressants including the barbiturates, certain tranquilizers and grain alcohol; and (3) stimulants, chiefly the amphetamines. Those which have no known beneficial effects include (1) the "hard" narcotics heroin and cocaine; and (2) hallucinogens such as lysergic acid diethylamide (LSD), dimethyltryptamide (DMT) and marijuana. Then there is a miscellany of dangerous agents including model-airplane glue, the freon that is used as a propellant in aerosol cans, gasoline vapor and other things which, when inhaled or otherwise ingested, produce a thrill or some other curious effect.

One of our major difficulties is that the phenomena that these materials produce are widely variable, and by attempting to issue specific warnings we run the risk of widening the credibility gap between ourselves and the younger generation. What we say may not have been borne out by some individual's first-hand experience. Yet most of the agents to which we object are at least sometimes psychologically addictive, and some of them are almost always physically habit-forming, and every one of them is capable of doing the user some physical harm.

Youngsters, or a few highly vocal and colorful ones of them, are extraordinarily rebellious. Parents generally are unsuccessful at guiding their recalcitrant offspring—the ones who are in greatest peril as far as drugs are concerned. For a variety of reasons, some of which are by no means their fault, the adults are exerting very little control over their sons and daughters' behavior. The young people, spurred by an unprecedented decade of social and technologic change, a similarly unique relaxation of moral standards and a pervasive permissiveness, and driven by their characteristic recklessness and a growing certainty—misguided or not—that there will be no tomorrow, are intent upon sampling everything they are not already convinced is lethal.

They charge us with hypocrisy, misinterpreting for example a widely publicized assertion that alcohol—the favorite indulgence of many of their elders—is just as injurious as many narcotics. On that basis they contend not only that narcotics have been declared innocuous but also that "the establishment" has taken the attitude of Aesop's dog in the manger.

THE FIRST STEP IS ALWAYS THE LONG ONE

How can we reach them, and what can we say that will be effective? Certainly we should follow the example of our colleagues in various parts of Iowa and start saying something—indeed looking for opportunities to do so. Our objective should be to keep young people from taking the first step, which usually consists of smoking marijuana, swallowing "bennies," chewing morning-glory seeds or sniffing model-airplane glue. Or at least we should try to reclaim them after they have experimented with one of those substances and before they have been introduced to heroin.

Marijuana is frequently the first agent to be tried, and paradoxically it may cause most trouble by failing to live up to the neophyte's expectations. The particular batch may produce no perceptible effect because it was grown in a temperate rather than in a tropical climate, because the "pusher" lessened its potency by "cutting" it, or because somehow or other the subject proved minimally susceptible. The danger, at that point, is that the youngster "has fallen among evil companions," to use a Biblical phrase. The "pusher" can provide heroin, too, and he is anxious to gain another customer for the higher-priced merchandise. The youngster accepts some heroin from him, and is "hooked."

Consequently we should concentrate on youngsters who are likely to be tempted or have been tempted to experiment with "pot," "speed" or glue, and we should stress the idea that is epitomized in the title of the speech which has been prepared for physicians to present at meetings of teenagers: "You, Too, Can Be a Social Dropout." For regardless of whatever other ill effects these agents can produce, they have one inevitable bad effect in common: They are sure to monopolize the youngster's time and attention, and prevent his accomplishing anything worthwhile!

The "in" generation prides itself on its social conscience. Thus we should be successful, to some degree, in getting its members to beware of drugs by pointing out to them that they would be selfish and indeed stupid to resign from the human race!

Automated Multiphasic Screening and Periodic Health Examinations

N. LEONARD MORGENSTERN, M.D.
Oakland, California

THE AUTOMATED MULTIPHASIC SCREENING that we now perform at the Permanente Medical Group, in Oakland and San Francisco, started on a small scale in the early 1950's. Since patients were insistent, and because we have always been committed to the concept of preventive medicine, we found ourselves doing large numbers of physical examinations on asymptomatic individuals. The original program was devised in an effort to streamline the routine aspects of these procedures, and to save physicians' time. In those early days we did only four laboratory tests—a VDRL test for syphilis, a urine protein, a hemoglobin by the falling-drop method, and a urinary sugar determination one hour after an ingestion of glucose. Also, we did simple measurements like blood pressure, height, weight, vision, chest film and an abbreviated electrocardiogram. The patient was also asked to fill out the Cornell Medical Index questionnaire, which contains about 200 questions all of which are so phrased that the "yes" answers are the significant ones.

All of this was done before the patient visited his physician, and as a result the doctor had the results in hand at the time of his examination. This often enabled him to reduce the length of a patient's visit, and made it unnecessary, in some instances, for him to require the patient to return though he might otherwise have had to do so.

Dr. Morgenstern made this presentation at the 1968 Iowa Lutheran Hospital Medical Day program, in Des Moines on March 20. The program is supported in part by USPHS Grand CD-00142.

In about 1960 we recognized that our program was inadequate, and that with modern automatic equipment we could certainly secure more information. In 1961, under a grant from the United State Public Health Service, the program was considerably broadened. Many tests were added, and computers were introduced to handle the resulting data.

Our multiphasic health check (MHC) is designed for the screening of any ambulatory patient, either well or sick. Although designed primarily for people who are generally well, many patients are referred for diagnostic surveys. Also there are patients with minor problems such as hernias who are sent to the MHC by surgeons.

DESCRIPTION OF THE MULTIPHASIC HEALTH CHECK

There are three parts of the MHC. The first consists of the multiphasic examinations themselves. The second is the evaluation of the results of the examination of the patient by the physician. It, of course, is the most important part; everything else is merely subordinate to it. The third part of the program consists of certain important supplemental screening examinations, administratively separate from the MHC. We strongly urge all women over 35 to undergo a gynecologic examination which includes a vaginal-cervical smear, and all patients over 40 are encouraged to undergo sigmoidoscopic examination.

The multiphasic health check is carried on in specially designed facilities at the Kaiser Foundation Hospitals in San Francisco and Oakland. Each can handle about 125 patients per day. The "day" starts at 1:00 p.m. and ends at 9:00 p.m. The last patients are scheduled for about 8:00 p.m. So all together we do about 4,000 screenings per month.

The diagram (Figure 1) illustrates the plan of the Oakland facility. At Station No. 1 the patients register and are scheduled to start the examination at three-minute intervals. Each receives a clipboard with a questionnaire on it, and also a stack of cards in a specially designed holder, which are to be used by the personnel at various stations.

Before leaving this area, the patient views a little slide show designed to orient him and help him follow instructions. In the dressing room, Station No. 2, he removes his upper-body garments, and puts on a disposable paper gown. He carries his clipboard with him at all times, and answers the questionnaire, a few questions at a time, whenever he has a few minutes between tests. The entire examination takes about two hours, unless the patient is held over for additional tests.

At Station No. 3 a six-lead electrocardio-

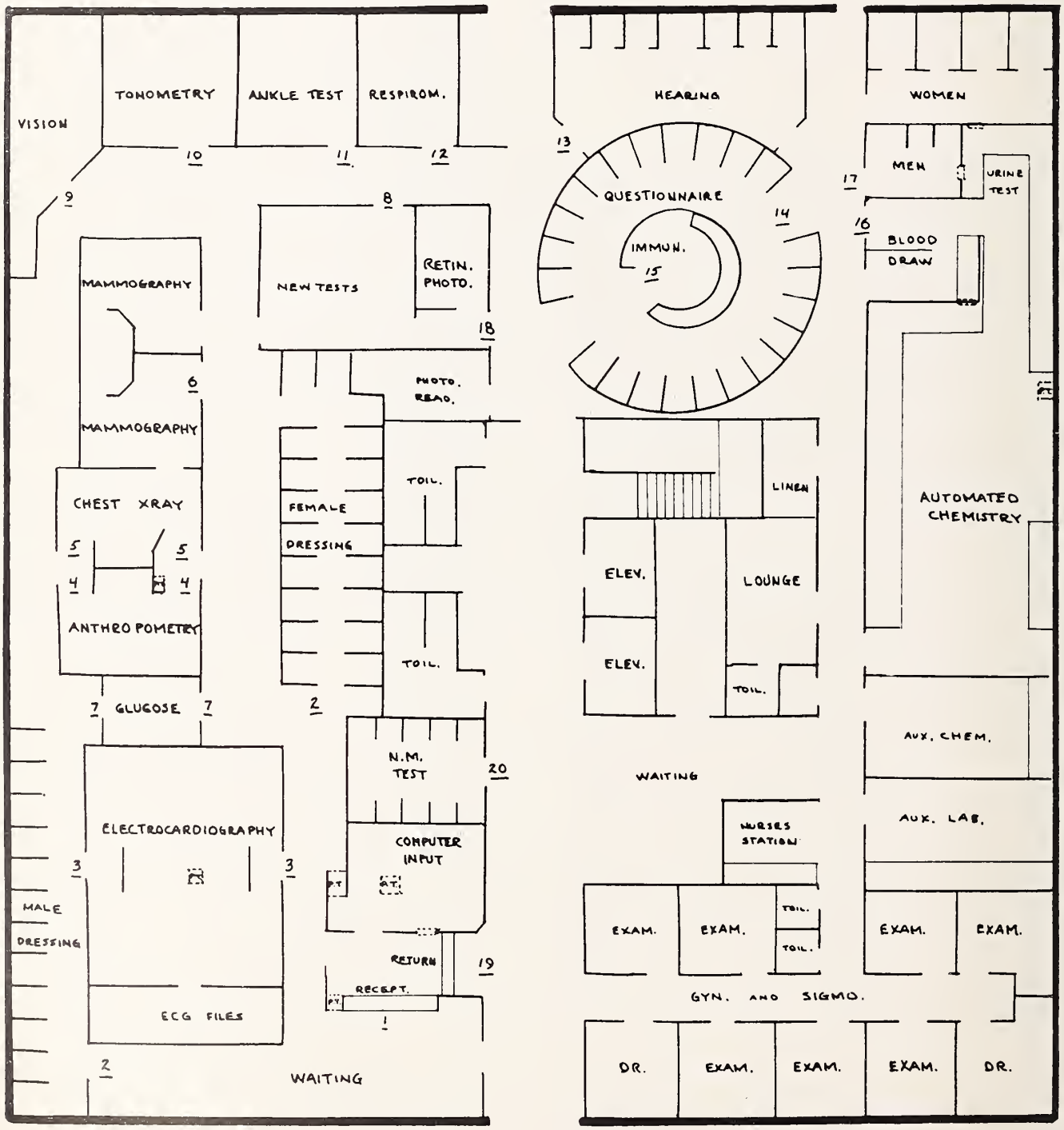


Figure 1. Multitest laboratory layout, Kaiser Foundation Hospital and Permanente Medical Group, Oakland, California.

graphic examination is done (AVR, AVL, AVF, V1, V3 and V5). The table is specially constructed, with metal troughs in which the patient simply lays his arms and legs. Another contact is strapped to his chest. Six leads are recorded simultaneously. Because this takes only five minutes and because there are two tables, we are able to maintain our schedule of three minutes per patient. The cardiologist reads the electrocardiogram a day or two later, and he records his interpretation on a mark-sense card and forwards it to the computer room. We refer to this delayed kind of test as "off-line."

Blood pressure is taken by a special device. A technician reads it from the dials, and marks the results on one of the patient's cards. This is an "on line" test, for the results are available to the computer while the patient is still in the MHC. The patient next goes into the anthropometry room. His height, weight and skin-fold thickness are measured and are recorded on a card by key punching. Twelve body measurements are taken in about two minutes by means of an ingenious mechanism consisting of mobile horizontal metal rods mounted upon a frame. These are placed appropriately on the patient, and by touching a foot pedal the technician can instantaneously record the height of the rods and the distance between their tips. This and other devices were specially designed and built by our electronics technician. Through them we hope to find correlations between body build and disease.

At the next station a postero-anterior chest roentgenogram is made. This is a 70 mm. film which is subsequently read by the radiologist. At Station No. 6 women over age 47 receive mammography for breast carcinoma. Cephalocaudad and lateral views are taken of each breast, and the procedure takes from six to eight minutes. The mammograms are subsequently read by the radiologist, and again he records his interpretations on mark-sense cards. Cancer of the breast is detected in one out of every 500 women over age 50. In half of them the cancers are not palpable. I might remark parenthetically that a certain number of palpable cancers are *not* detected by this procedure, and thus it cannot be relied upon to replace physical examination.

The patient then returns to the dressing room, puts his clothes on, and proceeds to Station No. 6, where he is given 75 Gm. of glucose. We found that the standard dose of 100 Gm. frequently caused vomiting. The lesser dose has, in our experience, been quite sensitive in detecting abnormalities of sugar metabolism. The dose is put into the form of a carbonated lemon-lime soft drink by our manufacturing pharmacy, and is measured out for patients by means of a commercial dispenser. These are easily and accurately calibrated, and are frequently checked. The nurse uses a time stamp to indicate the moment when the glucose is ingested, and she assigns the patient a number in a sequence from 1 to 24, corresponding to the 24 booths in the circular waiting-room in the center of the clinic.

At Station No. 9 the patient's visual acuity is tested by means of a wall chart. The technician merely records the number of letters "missed." A pupillary-escape test is done. A bright flashlight is swung back and forth between the patient's two eyes. In diseases of the pupil or the optic nerve, the pupil will dilate paradoxically, instead of constricting.

At Station No. 10 ocular tension is measured by a registered nurse using the Schiotz tonometer, and the reading for each eye is recorded on a mark-sense card. Approximately 1 per cent of patients are found to have glaucoma. If there are no contraindications, a drop or two of neosynephrine are placed in the right eye to dilate the pupil for later retinal photography.

At the next station, the one-second and a two-second forced-expiratory vital capacities, the total vital capacity and the peak flow are measured with a spirometer which automatically digitizes the measurements, and the higher of the two readings is recorded on a punch-card. We are developing norms for our own population by age, sex and body type.

In an attempt to quantitate the patient's emotional response, the ability to tolerate pressure is tested by means of an air-compression piston which increases pressure in a linear manner against the Achilles tendon. Pounds per square inch (psi) are read from the dial gauge at the moment the patient protests that he cannot stand any more pain. The test has been standardized so that the mean value for women is 20 and for men 30 psi.

An Achilles-reflex test is also done as a good,

though not perfect, means of detecting abnormal thyroid function.

At the next station, hearing acuity is measured with an automated audiometer which tests up to six patients simultaneously. The left ear and the right ear are individually tested for six tones from 500 to 6,000 cycles per second. When the patient hears the sound, he holds down the finger switch until he no longer hears it. Then he takes his finger off the switch until the sound returns. The graph readings are transferred by a technician to a mark-sense card.

At the next station, the self-administered medical questionnaire form which the patient received at Station No. 1 and which he has been completing during his waiting periods, is audited by a nurse. The patient is then sent to the one of the questionnaire booths indicated by the number that he was assigned at Station No. 6. He receives a letter box containing 207 prepunched cards each having on it a single dichotomous question. The patient responds to each question by taking the card from the top section of the divided letter box and dropping it into the middle section if his answer to the question is "Yes," or into the bottom section if his answer is "No." This procedure automatically sorts "Yes" responses for direct input to the computer. After the "Yes" cards have been read into the computer, they are reassembled with the others and replaced in the top of the box, ready for the next patient.

As part of the preventive medical program, if desired, tetanus immunization is provided to patients who have not been immunized previously or who have had no booster dose within five years. One-half cubic centimeter of tetanus toxoid is administered with a high-pressure jet injector. Approximately one-third of the patients receive tetanus toxoid. There is an additional charge for this procedure.

When an hour has elapsed since the patient's ingestion of the glucose challenge dose, he is called from his assigned questionnaire booth, and is sent to the laboratory at Station No. 16, where blood samples are drawn. The tests we now perform are listed on Table 1. Most of the test values are recorded on mark-sense cards. The chemistry tests are performed simultaneously within 12 min. by a multi-channel automated chemical analyzer, and the results are punched automatically onto cards. Normal

TABLE I

BLOOD TESTS PERFORMED

Hemoglobin	Albumin
White Blood Count	Total Protein
VDRL Test	Cholesterol
Rheumatoid Factor	Uric Acid
Blood Group	Calcium
Glucose	Transaminase
Creatinine	

values are established on our own population by age, sex and elapsed time since ingestion of last food. Five per cent of patients are found to have abnormally high serum glucose. The machine automatically completes and records the results on 30 samples per hour, for a total of 240 chemical determinations per hour. Since the patients are scheduled at the rate of 20 to 24 per hour, six to 10 spaces per hour are available for quality controls. Soon the chemical tests will be performed on an Autochemist, a 21-channel Swedish-made analyzer.

A freshly-voided urine specimen is collected, mid-stream, at Station No. 17, and paper-strip tests are performed for pH, blood, glucose and protein. In instances where the glucose is positive, the urine is also tested for acetone. Urine specimens are cultured for six hours with triphenyl tetrazolium chloride (TTC). If bacteria are present in the sample, a pink color develops, and such a specimen is then cultured for colony count and species identification.

The patient returns to his questionnaire booth. After he has completed all of his questions, he proceeds to Station No. 18, where a photograph is taken of his right retina by means of a fundus camera. Technically satisfactory films are obtained in over 90 per cent. After they have been developed, the films are read by an ophthalmologist. About 10 per cent of the photographs show some abnormality. Six per cent of males and seven per cent of females are categorized as having hypertensive retinopathy.

The patient then goes back to the area where he started. He returns the clipboard containing the packets of marked and punched cards, the completed questionnaire form, and the box of sorted medical questionnaire cards. These are passed by pneumatic tube to the computer room.

The patient then receives a second box of questions by means of which a psychological test can be conducted. He answers 155 psycho-

logical questions, recording his responses as "True" or "False" by depositing the cards in the appropriate sections of a divided letter box in a manner identical with that which he used in answering the medical questionnaire. The test represents an attempt to classify patients into 40 psychological categories.

While the patient is sorting these cards, his on-line data cards are being processed by the computer. In Oakland, the cards are read directly into the computer. In San Francisco the data are transmitted by a line to the central computer in Oakland which is capable of processing the on-line data for one patient in 1.25 minutes.

COMPUTER "ADVICES"

One of the most interesting developments that is made possible by the computer's speed consists of the "advice rules." These rules are in the form of code numbers. If no significant abnormalities have been detected, the number "800" directs the nurse to arrange an appointment for the patient a normal length of time in the future—i.e., several weeks after the multiphasic health check. Certain abnormalities may cause the computer to print the advice rule "801." It advises an appointment within one week. Major abnormalities—very high blood sugar, for example—will cause rule "901" to be issued. In that circumstance the patient is referred immediately to our emergency clinic. Other rules have to do with additional laboratory tests, and the nurse makes out requests for them at this time so that the results can be available to the physician when he sees the patient.

After all the "off line" results have been completed, such as the interpretations of chest film, electrocardiogram, etc., the computer prints out final summaries which are sent to the physician and are added to the patient's chart. Table 2 is an example of such a print-out. I call your attention to the stars. Any abnormal or possibly-abnormal result is given two stars. A single star means, "Note!" for it indicates a minor variation or an administrative oversight. A missing test will get a single star, and in this instance the fact that the two-hour blood sample was drawn 10 minutes late is noted. Observe that the patient has left-ventricular hypertrophy by EKG, high blood pressure, normal respirometry, and mild cardiac enlargement on x-ray. Visual acuity, pupillary escape, ocular tension, retinal photo, pain response and Achilles tendon reflex are all normal.

At the bottom of the print-out all of the "Yes" answers on the current questionnaire have been printed.

Observe the laboratory results. The urine pH was normal, but the glucose was "medium"—i.e., 1+ or 2+. If the glucose-oxidase strip test is positive—and it is very sensitive—then the Clinitest, a copper-reduction test and an acetone test are also done. Note that the normal ranges on all tests are determined by age and sex. This patient's one-hour glucose was 250 mg. as compared with a normal of less than 245 mg., and her two hour glucose level was 170, whereas the normal is under 150 mg. Although not really very high, these are definitely abnormal, and in view of the urine sugar and acetone, the patient probably has diabetes.

After all of the on-line data were entered into the computer, the advice rule "700" was printed out, causing the patient to be held for a blood sugar at two hours, and then there was the additional advice rule "901." The nurse then referred the patient to the Emergency Medical Clinic.

Usually, of course, appointments are scheduled for the patients. I cannot emphasize too strongly that the examination of the patient by his physician is the most important part of the procedure. Results are never released to the patient. In the majority of cases the physician will need no further laboratory data nor any additional visits. He makes entries on the patient's chart in the usual way, and then sends back to the computer room a form on which he has marked his findings and diagnoses. The information from the form is then read into the computer at the rate of 1,500 forms per hour. The patients for whom the internists have reported no clinically significant abnormalities are used to generate population norms.

RESEARCH ASPECTS OF THE PROGRAM

In my discussion I naturally have emphasized the patient-care aspects of the program, which are of the greatest direct importance. The research aspects also, however, are of major significance. In this large population we can derive normal values for age, sex and body build, and can correlate abnormalities with each other and with demographic data.

TABLE I

PERMANENTE MEDICAL GROUP—OAKLAND

FINAL SUMMARY REPORT—MULTIPHASIC HEALTH CHECKUP—2/07/67

DOE, JANE DR. SMITH J J

M.R.NO. 9876543 BIRTHDATE 05-29 FEMALE OAKL

ANTHROPOMETRY: 127.5 LB., 64.5 IN

**ECG: LT.VENT.HYPERTROPHY

**PHONOCARD: SYSTOLIC BASAL MURMUR

**SUPINE BLOOD PRESSURE: 165/80 SUPINE RADIAL PULSE: 76.

RESPIROMETRY:	(NORMAL)		(NORMAL)
FEV 1 SEC: 1.9L	(OVER 1.2)	TOT. FVC: 2.5L	(OVED 2.1)
FEV 2 SEC: 2.2L	(OVER)	PEAK FLOW: 3.4L/S	(OVER)

**CHEST XRAY: CARDIAC ENLARGEMENT HEART/CHEST RATIO .51

BREAST XRAY: NSA

VISUAL ACUITY: R.E.20/40 OR BETTER L.E.20/40 OR BETTER

PUPILLARY ESCAPE: NO PUPILLARY ESCAPE

OCULAR TENSION: R.E. NORMAL L.E. NORMAL

**RETINAL PHOTO: MINIMAL DIABETIC RETINOPATHY

HEARING: NO CLINICALLY SIGNIF. HEARING DEFECT

PAIN RESPONSE TEST: 21 (NORM.8-35)

ACHILLES REFLEX: 310MS (HYPERTHYROID 300−: NORM. 250-380: HYPOTHYROID 350+)

URINE: PH 6 **GLUCOSE MED. PROTEIN 0 BLOOD 0 BACILLI NEG.

**CLINITEST 3+ 4+ **ACETONE+

VDRL 0	BLOOD GROUP AB		LATEX AGGLUT. 0		
HEMOGLOBIN	12.3	GM (NORM. 12.0-14.5)	WHITE COUNT	9,000	(NORM. 4,000-12,000)
SERUM:	(NORMAL)		SERUM:		(NORMAL)
**GLUCOSE (1 HR.)	310	MG (UNDER 245)	CHOLESTEROL	195	MG (140-270)
**GLUCOSE (2 HR.)	170	MG (UNDER 151)			
TOTAL PROT.	6.7	GM (5.8-7.9)	CALCIUM	9.5	MG (8.6-10.8)
ALBUMIN	4.0	GM (3.0-5.0)	URIC ACID	3.9	MG (2.3-6.3)
CREATININE	.90	MG (UNDER 1.2)	SGOT	21 U	(UNDER 40)

*2 HR. BLOOD DRAWN 10 MIN.LATE

**PATIENT RECEIVED THE FOLLOWING (ADVICE RULE) DIRECTIONS:

901—REFER TO MEDICAL DROP-IN CLINIC STAT BECAUSE
URINE SUGAR 3+4+ AND ACETONE +

700—2 HR. BLOOD SUGAR

**CONSIDER REFER TO ASYMPT. DIABETES STUDY IF FOLLOW-UP CONFIRMS DIABETES.

PATIENT ANSWERED YES TO THESE QUESTIONS ON 1966 FORM:

249—HAD BAD REACTION OR SENSITIVITY TO PENICILLIN?

IN THE PAST MONTH:

434—THROAT BEEN SORE ALMOST EVERY DAY?

IN THE PAST 6 MONTHS:

450—SHORTNESS OF BREATH WITH USUAL WORK OR ACTIVITY?

IN THE PAST YEAR:

476—REPEAT PAIN, PRESSURE, TIGHT FEELING IN CHEST IN MIDDLE OF BREAST BONE?

478—REPEAT PAIN, PRESSURE, TIGHT FEELING IN CHEST WHEN SITTING STILL?

482—REPEATED PAIN OR PRESSURE, IN CHEST WHEN WALK FAST, LEFT ON REST?

483—REPEATED PAIN, PRESSURE OR TIGHT FEELING IN CHEST FORCED STOP WALKING?

484—REPEATED PAIN OR PRESSURE, IN CHEST LASTING MORE THAN 10 MINUTES?

574—ALWAYS HAVE TO GET UP FROM SLEEP TO URINATE?

** CONSIDER ABNORMAL, OR POSSIBLE VARIATION FROM NORMAL

NSA = NO SIGNIFICANT ABNORMALITY

* NOTE

From the point of view of medical economics, the essential question is, "How many cases of undetected disease can we find, at what cost, and with what benefit to the health of the population?" Or to put it another way, "To what extent does this type of examination really prevent disease, and to what extent can it be expected to lower medical costs?" Also, we might ask, "Assuming that there is value in multiphasic screening, what tests should be included in it?"

In an effort to answer these important questions, we are studying the multiphasic population and are contrasting it with a group selected from patients who have not gone through multiphasic screening. As one would expect, tentative data indicate that short-term costs are higher in the group of people who have been screened. This is the result of our treating the diseases discovered by means of the MHC. Not enough data are available to permit an estimate of long-term costs, but there is a suggestion that they may indeed be lower.

QUESTIONS AND ANSWERS

Questioner: What is the cost of the project?

Dr. Morgenstern: The actual cost for the tests is $25 per patient. This includes amortization of equipment and physicians' time for reading the electrocardiograms, roentgenograms and optic photographs, but does not include follow-up visits or follow-up laboratory tests. About 44 per cent of the cost is borne by the Public Health Service. The charge assessed of each private patient, and we have about 100 such per month, is $50.00, and 44 per cent of that fee is remitted to the Public Health Service.

Questioner: How do your physicians react to the program?

Dr. Morgenstern: There are a few who would be happy if we abandoned the whole thing. However the great majority have favorable reactions, and many are enthusiastic. My own personal opinion is that it is very valuable. It certainly reduces the amount of physician time required for a check-up examination.

Its main importance, to my way of thinking, is the detection of treatable occult diseases. For example, although few blood-calcium determinations are abnormal, hypercalcemia may be due to a parathyroid adenoma, which is a serious but curable condition. It may surprise you if I state that, in my opinion, the routine determination of blood calcium is more valuable today than the routine white count in the asymptomatic patient. There is, after all, no demonstrated advantage in the early treatment of leukemia, and a leukocytosis due to occult infection will either resolve or become symptomatic. In someone who is already ill, of course. the situation is reversed.

Questioner: Will you continue the program after the Public Health Service grants have been withdrawn?

Dr. Morgenstern: Yes, though we may decide to drop certain things—anthropometry, for example. The decision with regard to mammography would be hard. Most of the laboratory tests—the EKG, the chest film, ocular tension, hearing tests and most of the others—would be retained. Any test that, at moderate cost, can be relied upon to pick up significant numbers of cases of serious occult disease will be continued—e.g. calcium, the serologic test for syphilis, and ocular tension.

There are other tests that I think will definitely be continued, because they are easy to perform with modern equipment. The white count is an example. In the days when a WBC had to be done in a chamber it was not a part of our screening, for it was an expensive and tedious task. But nowadays an electronic device can perform the test quickly and accurately, and we include it.

Questioner: What is the yield of positive mammograms?

Dr. Morgenstern: About 1: 500, half of which were not palpable. Thus the net pickup rate is one in a thousand. These figures include only MHC cases; they do not include mammograms obtained in women with cystic disease or with carcinoma in the other breast. It is necessary to make a clear distinction between routine testing on asymptomatic patients, and diagnostic testing on patients who have symptoms or signs suggesting that a disease might be present. In the literature, the latter is sometimes also called "screening."

Questioner: How many Papanicolaou smears do you do?

Dr. Morgenstern: Gynecologic examinations are encouraged in all women over a certain age. These represent an important part of our preventive medicine program, but are not ac-

(Continued on page 429)

Causes and Significance of Taste and Odors in Iowa City Water

DONALD B. MC DONALD, Ph.D.,
NEIL B. FISHER, M.S., and
KEITH R. LONG, Ph.D.
Iowa City

DURING THE LATTER PART of February, 1969, Iowa City was plagued with an episode of unpleasant-tasting water. The immediate cause was the presence of high concentrations of combined chlorine and chloro-derivatives in the treated water. The increased chlorine dosage was necessitated by the unusually high concentrations of organic matter in the raw water utilized by both the Iowa City and University of Iowa water treatment plants. Both plants take their water from the Iowa River about five miles below the Coralville Reservoir.

Although treated water with a high combined chlorine residual and chloro-derivatives is not in itself hazardous, the undesirable taste and odor frequently cause consumers to seek other water supplies such as private wells, which, if contaminated, can constitute a potential health hazard. Thus severe taste and odor episodes actually have public health significance.

This paper presents the results of investigations conducted in an effort to determine the factors contributing to the high chlorine demand and the reduced water quality.

The Iowa River above Iowa City has a drainage area of slightly over 3,000 square miles consisting primarily of agricultural land. Prior to reaching Iowa City the river is impounded by the Coralville Reservoir, a flood control facility operated by the U. S. Army Corps of Engineers. The only stream of consequence entering the Iowa River between the Coralville Dam and Iowa City is Clear Creek, a stream which has an average discharge of about 50 cubic feet per second and which drains a heavily-farmed area of nearly 100 square miles. Water samples have been taken on a routine basis from the Iowa River about one mile below the Coralville Dam and at the intake to the University of Iowa Water Treatment Plant about five miles downstream. These samples are analyzed for a variety of factors including turbidity, biochemical oxygen demand (BOD), orthophosphates, lignins and tannins, threshold odor values and total plankton counts. Determinations of chlorine demand and threshold odor of the treated water are conducted in the Water Plant.

On February 17, 1969, prior to the odor episode, samples taken at the two river sites were somewhat similar both physically and chemically. Although phosphate concentrations and BOD values were relatively high, indicating a nutrient-rich water, threshold odor values for treated water from the University Water Treatment Plant were 4.2—only slightly higher than the maximum desirable level of 3 to 4. The river stage at that time was about 500 cubic feet per second at both river stations, indicating that little inflow was entering the river between the dam and Iowa City. On February 20, following several days of warm weather, chlorine demand at the Iowa City and the University Water Treatment Plants rose sharply, and the odor in the treated water was still discernible even when diluted 24:1 with odor-free water. (The threshold odor value was 24.) Water samples taken from the river directly below the Coralville Dam were physically and chemically similar to those which had been taken on February 17. Marked increases in

Dr. McDonald is an associate professor of environmental engineering and of preventive medicine and environmental health; Mr. Fisher is an assistant professor of preventive medicine and environmental health and superintendent of the University of Iowa Water Treatment Plant, and Dr. Long is an associate professor of preventive medicine and environmental health and chief of the Environmental Toxicology Section, Institute of Agricultural Medicine, at the University of Iowa.

phosphates, lignins and tannins, threshold odor value and BOD were noted at the intake to the University Water Plant. These indicated that a considerable amount of poor-quality water was entering the Iowa River between the two sites. Samples taken from Clear Creek on that same date contained extremely high concentrations of organic and inorganic matter. Phosphate concentrations of 4.3 parts per million (ppm), lignins and tannins of 5.8 ppm, and a biochemical oxygen demand in excess of 36 ppm were present. Threshold odor values of 13 of a "pig pen" nature were present. Because of melting snow and ice the flow in Clear Creek on that date had increased sharply, from about 5 cfs on February 17 to 70 cfs by February 20. Even more extreme conditions were present on the following day. On February 21, BOD values in excess of 60 ppm were obtained at Clear Creek and in excess of 30 ppm at the Water Plant. The threshold odor value of the treated water had risen to 42. The results of the analyses conducted on the Iowa River and Clear Creek samples are summarized in Table 1.

DISCUSSION

The conditions present in the Iowa River and Clear Creek are classical examples of the effects that extensive agricultural activity can have on the aquatic environment. The high phosphate concentration present in the water was indicative of runoff from heavily fertilized farm land. In this case the severe taste and odor problem seemed to be due to the large amounts of organic matter present in the streams as expressed by the high biochemical oxygen demand levels seen. In terms of BOD, Clear Creek at that time was carrying a load of degradable organic matter equal to that which might represent the untreated sewage from a city of more than 230,000 people.

This high concentration of organic matter necessitated the addition of greatly increased quantities of chlorine to the treated water. The combined chlorine compounds and chloro-derivatives thus formed were primarily responsible for the high taste and odor values.

Although taste problems due to runoff are not uncommon in Iowa and other predominantly agricultural areas, the severity of this episode was far greater than those of previous years.

The conditions responsible for the unusually high organic content of runoff waters are not fully understood. Possibly the numerous ice storms which had occurred earlier in the winter entrapped large amounts of plant material and livestock wastes, which were then carried into the streams as the ice melted rather than being absorbed into the soil. A similar condition occurred in the Iowa River drainage basin in 1964 and 1965, resulting in high BOD levels and fish-kills in the Coralville Reservoir.

Whether bacterial counts are or are not alarmingly increased, there is an indirect health hazard associated with the increasing loads of organic matter in the river during the early spring. The consequent increase in the use of chlorine during the water treatment process results in a finished product that may have high levels of combined chlorine residuals and chloro-derivatives which impart a taste and odor that many people find offensive.

TABLE 1

SUMMARY OF PHYSICAL AND CHEMICAL CONDITIONS

	Iowa River Below Coralville Dam					Clear Creek					Iowa River at University Water Plant					
Date	Flow cfs	5-day BOD ppm	Orthophosphate ppm	Lignins & Tannins ppm	Threshold Odor	Flow cfs	5-day BOD ppm	Orthophosphate ppm	Lignins & Tannins ppm	Threshold Odor	Flow cfs	5-day BOD ppm	Orthophosphate ppm	Lignins & Tannins ppm	Threshold Odor Raw	Threshold Odor Treated
Feb. 17	500	3.5	1.0	0.65	3.2	5	—	—	—	—	500	6.7	1.0	0.65	3.2	4.2
Feb. 20	500	4.2	1.0	0.8	5.6	70	>36	4.3	5.8	13	580	25	1.5	2.0	7.5	24
Feb. 21	500	10	0.8	0.3	5.6	120	>60	6.0	7.2	24	650	>30	1.8	1.9	7.5	42

The strong chlorine taste and odor imparted by these residuals are not believed to be injurious to health. The health hazard lies in the attempts the public may make to alleviate the problem by seeking other sources of drinking water. City dwellers turn to their rural neighbors for well water, and many times they use city or rural wells that have not been tested recently for purity. These "neighborhood" wells may be contaminated with bacteria or may have high levels of organic compounds—especially dissolved nitrates—that may be injurious to health, particularly that of children. Though the water from these wells may not impart a disagreeable taste or odor, they may be unsafe for human use because of contamination by bacteria and other materials. Thus they are a potential source of illness.

City dwellers who get their water from a river draining cultivated agricultural lands, corrals and feedlots are potential recipients of "bad" tasting water during the early spring months when surface thawing occurs over an underlying layer of frozen soil. Water from the melting snow with its burden of organic matter can no longer seep into the soil, as it can during the fall rains, but must run off to the nearest watercourse.

ACKNOWLEDGEMENTS

This study was supported in part by the U. S. Army Corps of Engineers and the Iowa State Water Resources Research Institute.

An Experiment in Community Medicine

TIMOTHY G. KLING and KEITH R. LONG, Ph.D.
Iowa City

IN TODAY'S DYNAMICALLY CHANGING social climate, there is an increasing awareness of the existence of a poverty class in the United States. Recently various individuals and groups have attempted to remedy the complex factors which lead to poverty in successive generations of particular families. One of those factors is inconsistency and inadequacy of total medical care. Economically depressed families in urban areas receive fragmented and uncoordinated medical care, and the rural poor are likely to receive no expert care at all for many of their health problems.[1] Neighborhood health centers financed by both governmental and private agencies have attempted to cope with these problems in ghetto areas, and other groups are working in rural districts in an effort to combat various social and medical difficulties.[2]

This paper will describe the planning, management and results of a program designed to provide health services for the migrant-worker population near Muscatine, Iowa.

PLANNING

In the spring of 1968, when the goals for these health services were being established, a three-part program was developed. It called for:

I. Medical screening examinations for the children of migrant families

II. A once-a-week family clinic for the non-emergency health problems of the migrants

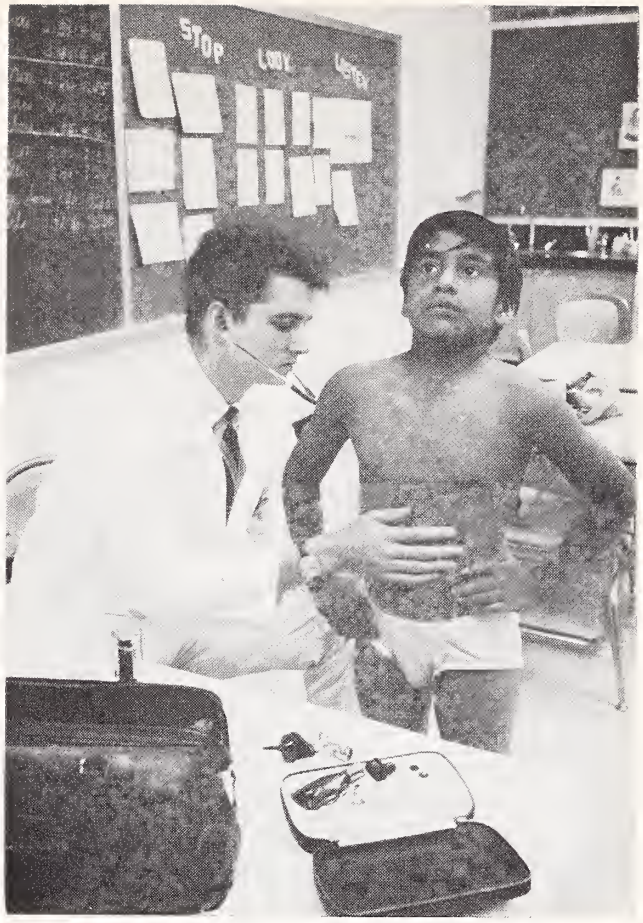
III. Medical students as health educators. Although the program consisted of three independent operational parts, nevertheless it was united in purpose and philosophy.

To achieve the goals, manpower was needed. After several meetings and discussions, numerous volunteers consisting of both students and staff members from the University of Iowa Medical Center indicated a willingness to take part. Those people then held a series of meetings with the Muscatine County Medical So-

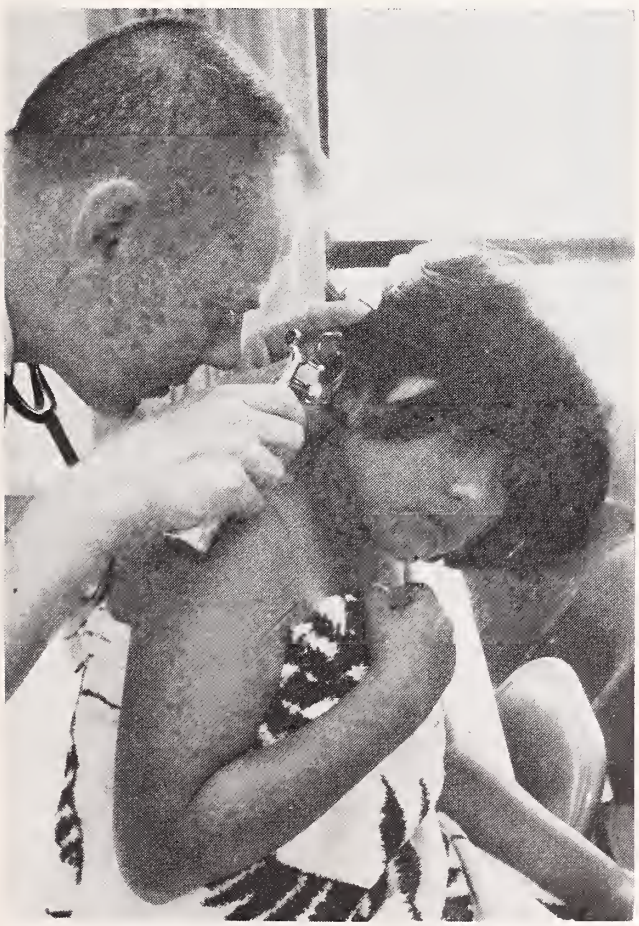
Mr. Kling is a third-year medical student, and Dr. Long is an associate professor in the Institute of Agricultural Medicine. They wish to acknowledge assistance from the following in the preparation of this report: George L. Baker, M.D., an assistant professor of pediatrics; Joseph E. Coniglio, a senior dental student; Alfred Healy, M.D., an assistant professor of pediatrics; William C. Keettel, M.D., head of obstetrics and gynecology; John C. MacQueen, M.D., a professor of pediatrics and head of the State Services for Crippled Children; H. Lloyd Miller, M.D., a lecturer in obstetrics and gynecology; Glen N. Peterson, a third-year medical student; Kenneth L. Walgren, M.D., an assistant professor of internal medicine; and the Muscatine Area Migrant Families Health Project Committee.



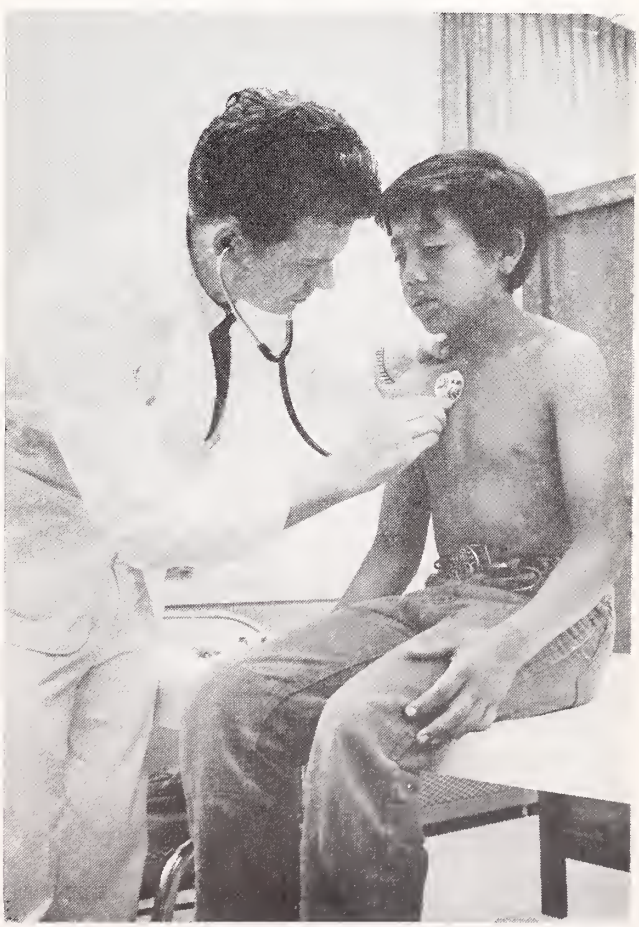
John A. Boice, Senior, Park Ridge, Illinois



Thomas A. Hicklin, Senior, Des Moines, Iowa



Donald Wilson, Senior, West Liberty, Iowa



Lee Zeutenhorst, Junior, Alton, Iowa

ciety and the Muscatine Migrant Committee to evaluate the probable needs of the migrant farm workers.

Prior to 1968, personnel, funds and facilities had been lacking for anything more than treatment for acute medical problems by the Muscatine doctors. It was thought that more participants would increase the possibility for total health care, and if the program were successful it was hoped that many problems borne by the Migrant Committee and local medical services would be alleviated.

MANAGEMENT

The children were easy to reach, for they were attending school. Following passage of the Child Labor Law by the General Assembly of Iowa, pupils up to 14 years of age were able to enroll in summer classes financed by the Headstart Program and the Muscatine Migrant Committee. The first part of the health program was to provide screening examinations for those children. On two occasions, students and staff members from the U. of I. Colleges of Medicine, Dentistry and Nursing conducted screenings, including a general medical examination, administered diphtheria, pertussis, tetanus and poliomyelitis immunizations, and conducted tuberculosis surveillance. Screenings of hearing and vision were done by the local staff. Any chronic medical or dental problems that were discovered were referred either to local physicians or dentists or to the University of Iowa Medical Center.

The second portion of the program consisted of a once-a-week family clinic for the non-emergency health problems of the migrants. It was held every Friday evening from seven until ten o'clock, from July 19 until September 16, 1968. On many occasions it ran overtime. The First Methodist Church, of Muscatine, provided basement facilities for a waiting room, six examination areas and a clinical laboratory.

The clinic personnel consisted of 12 to 14 medical students; two to four student nurses; two to four staff physicians; Ranald Olsen, M.D., from the Muscatine County Medical Society; two project nurses; a Planned Parenthood nurse; the project sanitarian; two interpreters; and a pharmacist from West Liberty. There were various other volunteers in addition.

Medical supplies were provided by the U. of I. Medical Center and the local project committee. With those resources the laboratory was able to run almost any routine diagnostic test, and a large variety of medications were available with which to begin therapy immediately. Cultures and specimens for serologic examination were sent to the State Hygienic Laboratory, and cervical smears and specimens for complex blood tests were taken to the U. of I. Medical Center for examination and processing.

Patients came voluntarily, or were referred by the Public Health Nurse. Antepartum and well-baby care was provided, along with medical care for non-emergency problems. Educational movies in Spanish and English were shown to waiting patients. Chronic medical



Dental Clinic

problems or cases with complications were referred to one or another of the local physicians, or to the U. of I. Medical Center. Students followed each patient's medical course by arranging for a return appointment.

In the third division of the health services program, medical students served as health educators. With the aid of local project personnel, principles pertaining to general health and sanitation were discussed with the migrants at the family clinics. Follow-up home visits were to be made to see whether the recommendations given at the family clinics and screening examinations had been followed.

RESULTS AND DISCUSSION

A total of 176 children were seen on the two occasions when screening examinations were conducted. Fifty-two of those were taken to one of three dental clinics in Iowa City for further dental care. Sixty-eight children received immunizations, and several were referred to the Department of Pediatrics at the U. of I. Medical Center for evaluations of heart murmurs and other disorders.

The screening performed one very important function which did not relate to physical or laboratory findings. The migrant families realized that the health services program was beneficial, and therefore accepted the family night clinic much more readily than had been anticipated.



Timothy G. Kling, Junior, Kellogg, Iowa

Because the migrant families came into Muscatine primarily on Friday nights, a large number of patients were seen at those clinics (Table 1), and a variety of disorders were diagnosed (Table 2). For example, six diabetics were treated; one new case of tuberculosis was discovered; two patients with neoplasms were diagnosed and referred; and two positive syphilis tests were reported in persons not previously known to be infected. Fourteen women received antepartum care during the summer, and eight cases of genitourinary disease were diagnosed and treated. Four patients with hypertension came to the clinic for evaluation, and various orthopedic problems were dealt with successfully. A Planned Parenthood nurse and a medical student provided instruction in family planning to 15 women. Thirty-one cervical smears were examined at University Hospitals, and three of them were reported as 1+. Students discussed general health and sanitation principles with the patients, and in addition the movies shown in the waiting-room area stressed those same points.

At the end of the eight clinics, a total of 57 medical students, five student nurses and 25 medical school faculty members had taken part in the project. The clinic routine was flexible enough so that revisions could be made in it, and by the end of the summer an efficient, well-organized diagnostic clinic was in full operation.

The Muscatine migrants are unique in that

TABLE 1

FAMILY CLINICS FOR NON-EMERGENCY AILMENTS

Total number of migrants in the area		1,050
Average attendance per clinic		37
Number of individuals seen	200	
Return visits	99	
Total		299
Referrals		
Local physicians	12	
U. of I. Medical Center	9	
Total		21

TABLE 2

AILMENTS MOST FREQUENTLY TREATED AT FAMILY CLINICS

Upper Respiratory Diseases	35
Ear Infections	19
Skin Diseases	23
Gastrointestinal Disorders	26

the majority of them are in Iowa only during the summer months. A migratory population, as opposed to a non-migratory one, offered several advantages. If the initial enthusiasm had waned after several months, the clinics would not have been cancelled prematurely. Also, an opportunity was available after two or three months to examine the program, including both the mistakes and the accomplishments. Modifications could then be made and new ideas incorporated before a need arose for further clinics.

The migrant clientele posed some special problems, however. Patient follow-ups were hindered, and it was difficult to give instruction on general health principles at times other than clinic hours. The local Migrant Committee handled the follow-up portion of the program. In the future it is expected that medical students can be involved to a greater extent. Occasionally the language barrier was a problem, but usually it was overcome. Time did not permit us to accomplish some of our goals, but we met the majority of them and surpassed some.

CONCLUSIONS

All concerned believe this project was an overwhelming success. Not only did it provide invaluable learning experiences for all, but it also opened channels of communication between staff, students and local health groups that will contribute significantly to a combined effort in the delivery of medical care.

The ideas and methods we developed while working with the various local groups in Muscatine County are now being utilized in Linn County and they will soon be extended to Johnson and Scott Counties as well. Through these projects the medical student sees and understands the broad social aspects of Iowa health problems, and while doing so he expands his understanding of the delivery of medical care services.

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Progress in Hemophilia Treatment

Some carriers of hemophilia—a severe blood clotting deficiency—can be detected by genetic means, an alumnus of The University of Iowa College of Medicine told participants in a symposium early in April.

Dr. Kenneth M. Brinkhous, professor and chairman of the Department of Pathology at University of North Carolina and former member of the Iowa faculty, reported on his 37 years of research in hemophilia at a College of Medicine postgraduate symposium on practical applications and new developments in blood coagulation.

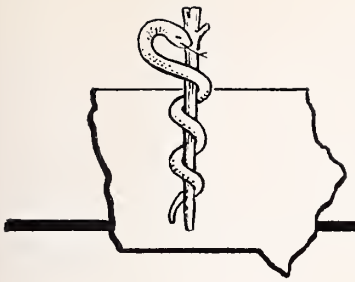
Studies on dogs showed that only 50 per cent of the normal levels of anti-hemophilia factor (Factor VIII) appears in the blood of heterozygous animals—those who are carriers of the disease—Dr. Brinkhous explained. The same deficiency is found in certain women who are carriers, but not in all of them, he added.

The successful studies on dogs have led to attempts to locate the genes involved using gene-mapping techniques. Some of these genetic studies have been rewarding, he said, but they haven't worked in all cases. Carriers do not have symptoms of the disease, but may transmit it to male offspring.

For uncomplicated cases, treatment of classical (Type A) hemophilia is very well bioengineered now, Dr. Brinkhous explained. High-potency fractions of anti-hemophilia factors in carefully calculated doses can bring patients safely through such operative procedures as extraction of teeth, he said.

For a person with normal blood clotting, extraction of teeth is not dangerous. However for a hemophiliac patient, this and other surgical procedures are hazardous without treatment with anti-hemophilia factors. Several surgical procedures have been performed successfully on hemophiliac patients at University Hospitals using anti-hemophilia factor therapy.

Hopes that transplantation of normal spleens may alleviate hemophilia have not yet been realized, Dr. Brinkhous said. Experiments in which large quantities of anti-hemophilia factor were recovered from perfusion of normal dog spleens raised these hopes. However, experimental transplants in hemophiliac dogs gave only temporary and partial increases in the level of anti-hemophilia factors in their blood, and the resultant levels were still below those needed for normal blood clotting, according to Dr. Brinkhous.



Editorials

FROM THE DISTAFF POINT OF VIEW

Is there a doctor in the house? Well, there is in ours. Sometimes.

When shadows fall and evening calls, he isn't. In the night or at dawn, hospitals and patients have priority.

Consider the plight of the lonely man who evaluates, judges, decides, and who alone bears the sweetness of success, the agony of failure. He is accused of being interested only in money, yet does untold charity, quietly and consistently. He is called arrogant, independent, inaccessible—yet leaves home, hearth and party to come to the aid of his fellow man. He is accused of being insensitive to man's suffering, yet is desolate, exhausted and resigned when disease and death claim the young, the needed, the vulnerable.

Still, there looms the greater specter of the Old Family Doctor, who was everything to everybody. Good old Doc, friendly and available. House calls? You bet—anytime, any place. Exorbitant fee? Nonsense, good old Doc was happy to get a couple of dollars. And he wasn't cold or impersonal. Why, he cared!

Right. And most doctors still do. Today's M.D. has had to learn more, go to school longer, invest more money in his education and continue all his medical life to take postgraduate courses and keep abreast of a staggering amount of current literature. He has to treat more patients simply because there are so many more, and because old Doc's second generation, more health minded, wants more medical care.

Old Doc didn't bother with extensive records; his patients stayed with him from womb to tomb and he knew them like a book. Today's patients are mobile; they change jobs, they change partners, they change doctors. They want specialists. And everyone wants records and copies of records—in triplicate. Old Doc never had to bother with insurance forms; young Doc is buried 'neath thousands of them. His cup runneth over; time and insurance wait for no man. Many employees may type much data; the doctor must still supply the information.

If doctors today have an easy life, keep banker's hours and spend their time traveling and playing, it's news to me. Those I know, and the one I have, work early and late, go to the hospital every day, even on Sunday, Christmas, and Easter, first Holy Communion days, graduation days, and on and on and on. Even when "the Doctor is out," part of him belongs to his patients. Wherever, whenever, Whither thou goest, goest the answering service.

My doctor gives his patients his time, his interest and the best of his ability. He is summoned from the golf course, the dinner table, his bed, parties—often his own—and he goes. Not always with a happy step, but he goes. Each patient has the benefit of his undivided attention. Home, family, stand in the wings and wait, and wait and wait. . . .

My doctor bears the responsibility of his patient's health, assumes the burden of bearing bad news when necessary and is always willing to help when needed. Not everyone can make that statement. My doctor takes pride in being an M.D. And I take pride in him, because I share his life. . . .

From Margaret Moore in the "News Lady" column of the CHICAGO DAILY NEWS. She is the wife of an internist who practices in suburban Oak Park, Illinois. Reprinted with the permission of the CHICAGO DAILY NEWS.

THE HAZARDS OF LUMBAR PUNCTURE

It is fitting that we be reminded occasionally of the hazards of some of the procedures which are performed daily in our hospitals and which are done with little thought of the possible adverse consequences. A recent report by G. P. Duffy, a British neurosurgeon, entitled "Lumbar Puncture in the Presence of Raised Intracranial Pressure" tells of an experience with 30 patients cared for in 1966 in whom serious neurologic deterioration occurred either immediately or shortly after a lumbar puncture.* The report is a dramatic reminder that the procedure is not completely innocuous, and that a spinal puncture should not be done in a patient in whom there is a suspicion of increased intracranial pressure unless the information to be obtained is truly essential in the treatment, and only if surgical facilities and qualified personnel are available for the correction of any adverse effects.

The author points out that in patients with increased intracranial pressure there is already a distortion and compression of the midbrain and medulla causing a disturbance in their blood supply. In these patients, so-called pressure cones develop which are produced by herniation of the unci of the temporal lobes through the tentorial hiatus or of the cerebellar tonsils through the foramen magnum. In the presence of increased intracranial pressure and the sudden lowering of spinal-fluid pressure by lumbar puncture, the herniation of either one or both cones is abruptly increased, resulting in serious and often sudden and dramatic deterioration of the patient.

According to Dr. Duffy, it is a common practice in some hospitals to perform lumbar puncture in order to examine the spinal fluid in any case in which there is any suspicion of an intracranial lesion. As a consequence of this practice and the resulting compression of the midbrain and medulla, patients with this condition are not uncommon admissions to a neurology department. During 1966 two Birmingham hospitals admitted 30 patients with this condition, and they constituted the basis for the study. All of the patients in the group were studied by angiography and ventriculography after admission, and 25 of them underwent surgery.

The clinical features which were present before lumbar puncture was performed were carefully analyzed by the author. Their presence should have served as a warning that lumbar puncture was contraindicated. These manifestations consisted of headache as a prominent symptom and often of increasing severity. Localizing neurologic signs were usually present, and progressive mental change with personality alteration was common. Papilledema was present in nine patients before the lumbar puncture was performed in the referring hospital. Five patients had signs suggestive of meningitis, and despite negative spinal-fluid cultures, repeated lumbar punctures were performed, and deterioration followed the second or later puncture. Dr. Duffy also emphasizes changes in skull x-rays, such as displacement of the pineal gland or erosion of the posterior clinoid processes. He states that of the 30 cases, 27 showed several if not all of these features before lumbar puncture was performed.

Three of this group of patients stopped breathing during the lumbar puncture or immediately after the needle was withdrawn. There was an immediate loss of consciousness in 13, rapid changes in the level of consciousness in 15, and in two patients there was no change in the level of consciousness, but there were rapid changes in neurologic signs. In the patients who experienced rapid changes in neurologic signs, the difficulty occurred within 12 hours following lumbar puncture, and there was progressive deterioration and worsening of the neurologic signs. In all, seven patients rapidly developed unequal pupils.

Half of the patients had non-malignant, potentially curable lesions. A special group consisted of patients with brain abscesses which were treated as meningitis. Repeated lumbar punctures were done in them. They had de-

* Duffy, G. P.: Lumbar puncture in presence of intracranial pressure. BRITISH M. J., 1:407-409, (Feb. 15) 1969.

veloped meningism following middle-ear or sinus infections, and in all of them the spinal fluid was sterile, even though a pleocytosis was present and lowering of spinal-fluid sugar was questionable. The author says that the conversion of a patient with an eminently treatable cerebral abscess into one with secondary irreversible brainstem damage from tentorial pressure cone formation is an iatrogenic tragedy that should be avoidable.

The outcome in this group is a distressing one, and should serve as a warning to all physicians who are called upon to perform lumbar punctures. Twelve patients died within 10 days, and eight of them were precipitated into immediate coma following the spinal tap. Two patients died within six months after the procedure. Four patients survived but were severely disabled. Twelve of the group recovered sufficiently to resume relatively normal work.

In discussing the subject, the British physician stated that one cannot be certain which of the signs and symptoms present before lumbar puncture were due to the primary lesion as a consequence of its location, and which were due to dislocation of the intracranial contents by the size of the lesion and the height of the intracranial pressure. It is believed that both factors contributed to it. It is acknowledged that a rapid worsening of the primary condition may have been responsible for the rapid deterioration; however it is just too much of a coincidence that this should have happened in each of the patients so promptly after a lumbar puncture. Some people contend that lumbar puncture in the presence of increased intracranial pressure is safe provided that only a small amount of spinal fluid is withdrawn, drop by drop. But Dr. Duffy points out that this does not allow for the seepage of spinal fluid which occurs after the needle has been withdrawn. The seepage may explain the continuing and worsening herniation.

Obviously it is incumbent upon the physician to weigh the indications for lumbar puncture very carefully, and keep in mind the hazards of the procedure in patients with symptoms and signs suggestive of increased intracranial pressure.

MUST OBSTETRICS BE LEFT TO THE OBSTETRICIANS?

An appraisal of maternity care in Iowa by Dr. William C. Keettel, of the U. of I. College of Medicine, in the January 27 issue of JAMA is deserving of much more than the casual interest of the medical profession throughout the state.* Dr. Keettel first evaluates maternity care in Iowa in 1966, when all of the birth certificates for the 49,609 live births were available for study. He then points out that changing demographic conditions and a shortage of physician manpower present problems which must be faced realistically if the enviable record of maternity care in Iowa is to be maintained. Unquestionably the suggested methods for meeting this challenging situation will be entertained enthusiastically by some physicians, but they will be unalterably opposed by others. Reactions to the proposed changes in the communities and the hospitals that would be affected are not definitely predictable at this point. The responses are likely to depend upon the reasons for the changes and upon how well the proposed plan is presented.

During 1966 there were 49,609 live-birth certificates filed. The fact that there were just 12 maternal deaths during that year, in Iowa, is a record of which the profession can be justifiably proud. The perinatal mortality of 25.4 per 1,000 still presents a challenge. Dr. Keettel excluded approximately 3,000 deliveries from his study, for various reasons, and thus the study covered a total of 45,803 deliveries. In 1966 there were 2,431 doctors of medicine and 361 osteopaths in the state, of whom 1,162, or 48 per cent, included obstetrics as part of their practice. Of those 45,803 deliveries, 77.4 per cent were performed by general practitioners or by generalists with a special interest in obstetrics, and just 22.3 per cent were delivered

* Keettel, W. C.: Appraisal of maternity care in Iowa. J.A.M.A., 207:721-724, (Jan. 27) 1969.

by board-qualified specialists. The average generalist cared for 32 obstetrical patients per year, in contrast to the average specialist's 157. A surprising finding was that almost half of the generalists (47.7 per cent) delivered fewer than 25 patients a year, whereas almost three-fourths of the trained specialists (73.8 per cent) made over 100 deliveries per year, constituting 29.7 per cent of the state's total.

Being concerned about the future of maternity care in Iowa, Dr. Keettel was interested in the age characteristics of the physicians doing obstetrics in the state. In 1966 the board specialists and the osteopaths doing obstetrics were found to be younger than the generalist M.D.'s, with fewer of the obstetricians being over 50 years of age. It was found that 40 per cent of the generalists as a whole and 57 per cent of the generalists especially interested in obstetrics were over 50. Also, the majority of general practitioners over 50 years of age delivered fewer than 25 patients per year. The age factor is particularly significant because the older generalists are likely to relinquish the obstetrical part of their practice first, and even the specialists are inclined to restrict their work to gynecology when the pressures and the odd hours that the obstetrician must endure become onerous.

In 1966, Dr Keettel says, there were 142 hospitals in Iowa, and they had 1,688 obstetrical beds. There were 26 Hill-Burton hospitals of 30 to 50 beds which provided 127 obstetrical beds. The deliveries in such hospitals averaged fewer than 100, and their obstetrical facilities had just 18 per cent occupancy. The total deliveries there, during 1966, were 1,742. At the other extreme, nine hospitals had over 1,000 deliveries each. They provided 338 obstetrical beds; their occupancy was 55.4 per cent; and the deliveries totaled 14,117.

He points out that a large obstetrical bed capacity and volume of service does not necessarily assure a high level of professional care and administrative efficiency. An attempt was made to classify hospitals as excellent, good, fair and poor, utilizing accepted criteria in assessing the quality of the maternity and newborn areas of each institution. Of the 26 hospitals that were rated "poor," three-fourths had fewer than 150 deliveries each, per year. In contrast, six of the nine hospitals with over 1,000 deliveries per year were rated "excellent," and the remaining three were rated "good." According to Dr. Keettel, these findings emphasize the difficulty of providing a complete and adequate maternity service in a hospital where there are fewer than 500 deliveries per year.

Data concerning obstetrical anesthesia had been obtained for over 11,000 births, and the accoucher had given the anesthestics in 35 per cent; a registered nurse lacking anesthesia training, 27 per cent; a registered nurse-anesthetist, 19 per cent; and an anesthesiologist only 11 per cent. A somewhat surprising finding was that a registered nurse without anesthesia training administered the anesthetic in 50 per cent of the cases in the small hospitals and in 22 per cent of those in the large hospitals. As might have been expected, it is in the larger hospitals that trained personnel give a higher percentage of the obstetrical anesthetics.

It is significant that 81 per cent of the hospitals, in which 88 per cent of the obstetrical patients were cared for, have either their own blood banks or associated services which can provide type O negative blood at all times, and properly matched blood within one hour.

According to Dr. Keettel, approximately 24 graduates of the U. of I. College of Medicine return to the state each year, and one-half of them enter general practice. Another 25 physicians from out-of-state medical schools may start work here in any given year. Thus, if the present pattern continues it can be expected that there will be 100 new general practitioners in Iowa in the next five years. The 1966 survey revealed that three-fourths of the deliveries were done by general practitioners, accounting for 36,000 births. It also showed that 40 per cent of the physicians were over 50 years of age. It is a reasonable expectation that within five to eight years these older men will be doing little obstetrics. Thus, according to Dr. Keettel, "physician manpower in obstetrics will be our number-one problem, and the shortage is already appearing in certain areas."

He goes on to say, "If we plan wisely and are willing to make changes, we can assure this state a continued high level of maternity care, providing the fullest protection to infants and mothers." He urges that the following steps be given serious consideration:



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Contraindications—Thrombophlebitis, thromboembolic disorders, cerebral apoplexy or a past history of these conditions, markedly impaired liver function, known or suspected carcinoma of the breast, known or suspected estrogen-dependent neoplasia, undiagnosed abnormal genital bleeding.

Warnings—Watch for the earliest manifestations of thrombotic disorders (thrombophlebitis, cerebrovascular disorders, pulmonary embolism, retinal thrombosis); if present or suspected discontinue the drug immediately.

British studies reported in April 1968[1,2] estimate there is a seven- to tenfold increase in mortality and morbidity due to thromboembolic diseases in women taking oral contraceptives. In these controlled retrospective studies, involving 36 reported deaths and 58 hospitalizations due to "idiopathic" thromboembolism, statistical evaluation indicated that the differences observed between users and non-users were highly significant. The conclusions reached in the studies are summarized in the table below:

Comparison of Mortality and Hospitalization Rates Due to Thromboembolic Disease in Users and Non-Users of Oral Contraceptives in Britain.

Category	Mortality Rates		Hospitalization Rates (Morbidity)
	Age 20-34	Age 35-44	Age 20-44
Users of Oral Contraceptives	1.5/100,000	3.9/100,000	47/100,000
Non-Users	0.2/100,000	0.5/100,000	5/100,000

No comparable studies are yet available in the United States. The British data, especially as they indicate the magnitude of the increased risk to the individual patient, cannot be applied directly to women in other countries in which the incidences of spontaneously occurring thromboembolic disease may differ.

Discontinue medication pending examination if there is sudden partial or complete loss of vision, or sudden onset of proptosis, diplopia or migraine. Withdraw medication if papilledema or retinal vascular lesions are found.

Since the safety of Ovulen in pregnancy has not been demonstrated, it is recommended that pregnancy be ruled out for any patient who has missed two consecutive periods before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule the possibility of pregnancy should be considered at the first missed period.

A small fraction of the hormone agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. The long-range effect to the nursing infant cannot be determined at this time.

Precautions—Pretreatment physical examination should include special reference to the breasts and pelvic organs, and a Papanicolaou smear.

Endocrine and possibly liver function tests may be affected by Ovulen. Therefore, it is recommended that such tests if abnormal be repeated after the drug has been withdrawn for two months.

Pre-existing uterine fibromyomas may increase in size under the influence of progestogen-estrogen preparations.

Because these agents may cause some degree of fluid retention, conditions which might be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation.

In breakthrough bleeding, and all irregular vaginal bleeding, consider nonfunctional causes. Adequate diagnostic measures are indicated in undiagnosed vaginal bleeding.

Carefully observe patients with a history of psychic depression and discontinue the drug if severe depression recurs.

Any possible influence of prolonged Ovulen therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study.

A decrease in glucose tolerance has occurred in a significant percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be observed carefully while receiving Ovulen.

Because of the effects of estrogens on epiphyseal closure Ovulen should be used judiciously in young patients in whom bone growth is not complete.

The age of the patient constitutes no absolute limiting factor, although Ovulen therapy may mask the onset of the climacteric.

The pathologist should be informed of Ovulen therapy when relevant specimens are submitted.

Adverse Reactions—A statistically significant association has been shown between use of oral contraceptives and the following serious adverse reactions: thrombophlebitis, pulmonary embolism.

Although available evidence is suggestive of an association, such a relationship has been neither confirmed nor refuted for the following serious adverse reactions: cerebrovascular accidents, neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis.

The following adverse reactions are known to occur in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea during and after treatment, edema, chloasma or melasma, breast changes (tenderness, enlargement, secretion), change in weight, changes in cervical erosion and cervical secretions, suppression of lactation when given immediately post partum, cholestatic jaundice, migraine, allergic rash, rise in blood pressure in susceptible individuals, mental depression.

Although the following adverse reactions have been reported in users of oral contraceptives, an association has been neither confirmed nor refuted: anovulation post treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme and nodosum, hemorrhagic eruption, itching.

The following laboratory results may be altered by oral contraceptives: hepatic function: increased sulfobromophthalein and other tests; coagulation tests: increase in prothrombin, Factors VII, VIII, IX and X; thyroid function: increase in PBI and butanol extractable protein bound iodine, and decrease in T^3 uptake values; metyrapone test; pregnanediol determination.

References: 1. Inman, W. H. W., and Vessey, M. P.: Brit. Med. J. 2:193-199 (April 27) 1968. 2. Vessey, M. P., and Doll, R.: Brit. Med. J. 2:199-205 (April 27) 1968.

Before prescribing see Detailed Product Information.

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Contraindications: Severe central nervous system depression, comatose states from any cause, hypertensive or hypotensive heart disease of extreme degree.

Warnings: Administer cautiously to patients who have previously exhibited a hypersensitivity reaction (e.g., blood dyscrasias, jaundice) to phenothiazines. Phenothiazines are capable of potentiating central nervous system depressants (e.g., anesthetics, opiates, alcohol, etc.) as well as atropine and phosphorus insecticides. During pregnancy, administer only when necessary.

Precautions: There have been infrequent reports of leukopenia and/or agranulocytosis and convulsive seizures. In epileptic patients, anticonvulsant medication should also be maintained. Pigmentary retinopathy may be avoided by remaining within the recommended limits of dosage. Administer cautiously to patients participating in activities requiring complete mental alertness (e.g., driving). Orthostatic hypotension is more common in females than in males. Do not use epinephrine in treating drug-induced hypotension. Daily doses in excess of 300 mg. should be used only in severe neuropsychiatric conditions.

Adverse Reactions: *Central Nervous System*—Drowsiness, especially with large doses, early in treatment; infrequently, pseudoparkinsonism and other extrapyramidal symptoms; nocturnal confusion, hyperactivity, lethargy, psychotic reactions, restlessness, and headache. *Autonomic Nervous System*—Dryness of mouth, blurred vision, constipation, nausea, vomiting, diarrhea, nasal stuffiness, and pallor. *Endocrine System*—Galactorrhea, breast engorgement, amenorrhea, inhibition of ejaculation, and peripheral edema. *Skin*—Dermatitis and skin eruptions of the urticarial type, photosensitivity. *Cardiovascular System*—Changes in the terminal portion of the electrocardiogram have been observed in some patients receiving the phenothiazine tranquilizers, including Mellaril (thioridazine hydrochloride). While there is no evidence at present that these changes are in any way precursors of any significant disturbance of cardiac rhythm, several sudden and unexpected deaths apparently due to cardiac arrest have occurred in patients previously showing electrocardiographic changes. The use of periodic electrocardiograms has been proposed but would appear to be of questionable value as a predictive device. *Other*—A single case described as parotid swelling.

Mellaril®
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25 mg. t.i.d.

for moderate to severe anxiety and mixed anxiety-depression

SANDOZ SANDOZ PHARMACEUTICALS, HANOVER, N. J. 68-169

1. There should be fewer maternity units, and these must be large enough to render a substantial volume of service and be strategically located in population centers. Each unit must provide a well trained medical and nursing staff, and meet the requirements for excellence according to the author's concept of an ideal maternity unit.

2. Hospitals delivering fewer than 100 patients per year should consider closing their units. Eventually those delivering under 250 patients per year should consider closing, or consolidating with another unit.

3. Physicians delivering fewer than 25 patients annually should consider discontinuing this phase of their practice.

4. The graduate nurse who has not been trained in anesthesia should not be required to give obstetrical anesthesia.

5. As the generalists retire from obstetrics, they should be replaced by a large number of trained specialists. Forty to 50 new specialists will be required in Iowa within the next five to 10 years.

The author acknowledges that many who read his report may be angered or upset, and the changes he recommends will require time, tolerance, ingenuity and careful planning. Painful adjustments and reorientation are demanded.

It is fitting that Dr. Keettel's suggestions be given serious study by hospital staffs and boards of directors. Surely, hospitals in which the obstetrical beds have only 40 to 50 per cent occupancy should consider consolidation, making much-needed beds available for medical or surgical patients. There certainly is some doubt whether a hospital which does not have blood immediately available in an emergency should continue to maintain an obstetrical service. More qualified obstetricians are required despite "the pill," but perhaps greater effort should be made to induce young doctors to specialize in "family medicine," and thus to help meet the obstetrical as well as the other medical needs of the community.

Although the grass may appear greener and the atmosphere rarer beyond the Mississippi and the Missouri, physicians must make an extra effort to convince well qualified young doctors that Iowa is a fine place to live, to practice medicine and to rear a family!

TIME IS OF THE ESSENCE

The frequency of sudden deaths from heart attack, before the afflicted person can be taken to a hospital indicates that many of the deaths are results of the rapid onset of fatal complications of myocardial infarction. There should be no delay in the admission of a patient suspected of having a myocardial infarction. Ambulances adequately equipped and properly staffed might save many lives. Delays in the admitting or in the emergency room should be avoided, and direct entry into an intensive-care unit or coronary-care unit should be expedited.

Two recent articles in THE LANCET reporting on ventricular fibrillation and heart block complicating acute myocardial infarction deserve critical study by clinicians. Both articles emphasize how early in the course of the illness these critical conditions usually occur, and that prompt—even immediate—treatment is necessary if the patient is to survive.

The first report was written by K. W. Donald and associates, of the Royal Infirmary, Edinburgh.* Of 600 patients with acute myocardial infarction admitted directly to the coronary-care unit, 50 (8.3 per cent) developed ventricular fibrillation. In addition there were 21 patients with this arrhythmia who were transferred from the general wards of that hospital. Of these 71 patients, 24 developed ventricular fibrillation without any evidence of cardiac failure or hypotension, and in 47 patients the arrhythmia occurred as a complication of cardiac failure or shock. The former were classified as primary, and the latter as complicating ventricular fibrillations.

If there was no delay in treatment, the outcome in each of these cases was related to the

* Lowrie, D. M., Higgins, M. R., Godman, M. J., Oliver, M. F., Julian, D. G., and Donald, K. W.: Ventricular fibrillation complicating acute myocardial infarction. LANCET, 2:523-528, (Sept. 7) 1968.

clinical state of the individual at the time of onset of the arrhythmia. Twenty of the 24 patients with primary ventricular fibrillation but without shock or cardiac failure survived to leave the hospital. By contrast, only 13 of the 47 patients who developed the arrhythmia in the presence of cardiac failure and/or shock left the hospital alive. In all of these patients the onset of the arrhythmia was associated with loss of consciousness and the absence of pulses. The presence of myocardial infarction was established by accepted criteria, and was confirmed at autopsy in 31 of the 38 patients who died after an episode of ventricular fibrillation.

A disturbing finding was that in the 24 patients who developed primary ventricular fibrillation, it occurred within four hours following the onset of myocardial-infarction symptoms in 80 per cent of them, and within 24 hours of the onset in all but two. In the 47 patients in whom there was evidence of cardiac failure or shock at the onset of ventricular fibrillation, the interval from the beginning of infarction symptoms was less than four hours in 45 per cent, and less than 12 hours in 60 per cent.

The treatment of the cardiac arrest due to ventricular fibrillation was defibrillation at 300 watt-seconds, usually done within one minute. Following this, the patient was given 100 mEq. of sodium bicarbonate and an intravenous injection of 100 mg. of lignocaine.

Among the 38 deaths, 13 were the result of shock; 17 were due to ventricular fibrillation; 5 were due to asystole and 3 to cardiac failure. In seven patients the failure of resuscitation was attributed to delay in taking appropriate measures, and four died in transit between the site of onset and the emergency department or the coronary-care unit. It was in the younger age group that resuscitation had the most pronounced effect in reducing mortality.

The Edinburgh group concluded that defibrillation has almost always been immediately effective in restoring sinus rhythm except in patients with acute pulmonary edema and shock. The later progress of the patient depends upon the clinical condition of the patient at the time ventricular fibrillation develops. Almost all of the patients who develop arrhythmia in the absence of cardiac failure or shock survive to be discharged from the hospital. The authors state that in the long run those who have been resuscitated may be no worse off than those patients who have not had an episode of ventricular fibrillation.

The second study, by Leatham and associates at St. George's Hospital, London, concerned 55 patients who developed heart-block complicating acute myocardial infarction.† They were 43 males with an average age of 55 years, and 12 females with an average age of 63 years. All patients were diagnosed clinically as having myocardial infarction, and the diagnosis was confirmed by electrocardiographic studies and elevation of serum enzymes. Autopsy supported the diagnosis in 17 of the group. Twenty-nine patients were admitted directly to St. George's Hospital, and 26 patients were transferred there from other hospitals where transvenous pacing had been carried out by one of the authors.

Transvenous pacemakers were used in treating all patients—an external, fixed-rate pacemaker in the first 18, and an external, demand pacemaker in the other 37 patients. In those who survived, the electrode was left in place for 21 days following the return of 1:1 conduction. A median cubital arm vein was used for electrode insertion in 52 of the group, and an external jugular vein in 3. Fluoroscopic control was employed in most of the patients, to assure proper positioning of the electrode in the apex of the right ventricle.

The mean period between the onset of chest pain and the onset of block was 2.4 days, and the range was from 0 to 15 days. Thirty of the 55 patients survived, and 25 died—a mortality of 45.5 per cent. The average duration of block after transvenous pacing was 1.9 days. Just one patient remained in complete heart-block and survived, requiring long-term pacing.

The mortality in this group of 55 patients treated by means of transvenous pacing was 45.5 per cent. In the 18 patients who had fixed-rate pacemakers there were 10 deaths (56 per cent); in the 37 who had demand pacing there were 14 deaths (38 per cent); and there was one hospital death after removal of the pacing system.

Syncopal attacks secondary to AV block following an acute myocardial infarction are as-

† Sutton, R., Chatterjee, K., and Leatham, A.: Heart-block following acute myocardial infarction. LANCET, 2:645-648, (Sept. 21) 1968.

sociated with a poor prognosis. The patient may die in the attack, and survival usually is followed by deterioration in his clinical condition. In this series the mortality was 61 per cent. Others have reported a 75 per cent mortality. Because of the seriousness of the Stokes-Adams syndrome in acute myocardial infarction, and because it occurs without warning, the authors now insert a demand pacing system *immediately* when a patient develops second-degree or complete heart block. Other unfavorable prognostic signs are anterior infarction, EKG evidence of a previous infarction, failure of pacing to reverse shock, evidence of cardiac failure, and broadening of the QRS complex in the electrocardiogram.

The authors state that it is now their policy to use demand pacemakers with unipolar electrodes to secure larger intracardiac potentials and fast pacemaker rates that will minimize competition. They combine this with a liberal use of depressant drugs.

They conclude by saying that some reduction in the mortality of heart-block complicating acute myocardial infarction can be expected to result from improved management. This includes early electrode insertion, and demand pacing with low-output voltage. However in patients with extensive myocardial damage, transvenous pacing will have little influence on the outcome.

From these studies it is apparent that the time factor is of the essence in the management of acute myocardial infarction and its complications. Early admission to a coronary-care unit where monitoring can be carried out and in which trained personnel and proper equipment are provided is now generally accepted as necessary. Immediate defibrillation of the patient with ventricular fibrillation is mandatory if life is to be spared or permanent brain damage is to be prevented. Syncope as a manifestation of heart block in acute myocardial infarction calls for prompt transvenous pacing because of the poor prognosis of this complication in a serious disease, even when uncomplicated.

DIABETIC PATIENTS WITH FOOT LESIONS

A recent article on the management of diabetic patients with foot lesions, by two orthopedists from the VA Hospital and the adjacent New York Downstate Medical Center, Brooklyn, relates some experience with a very conservative approach to the management of this difficult problem.* It should be of great interest to those who are confronted with patients presenting this complication.

The authors, Smith and Casingal, first point out that in the United States it is estimated that there are 1.5 million persons with known diabetes and another million with unrecognized diabetes. As a result of improved diabetic management, the patients have a longer lifespan than previous patients had, and their added years have permitted the late complications to develop. Thus, practicing physicians encounter such problems with increasing frequency. Peripheral vascular disease, neuropathy and an increased susceptibility to infection all contribute to the hazards of ulcers or gangrene of the foot in such individuals. Previous studies have demonstrated that early detection of foot lesions and good management of the diabetes did not influence the incidence of vascular disease, and that in the diabetic there is a characterisic endothelial proliferation and hypertrophy of the basement membrane of the arterioles in the lower extremities. It has also been demonstrated that in 30 per cent of diabetic patients with a lesion of one foot, similar problems have developed in the other foot within three years.

In the past it has been common for surgeons to amputate above the knee in patients with diabetic foot problems. They did this out of consideration for speed and the reliability of wound healing. Although healing may have been quicker and surer, the morbidity and mortality were increased. Many patients became bedridden or were restricted to a wheelchair existence. With the passage of time and

* Smith, A. G., and Casingal, E. L.: Management of diabetic patients with foot lesions. SURG. GYNEC. & OBSTET., 128:85-87, (Jan.) 1969.

with the accompanying advances in medicine and prosthesis design, the rehabilitation of diabetic patients with foot lesions has become increasingly important.

In order to preserve function and to facilitate rehabilitation, it became apparent that limited surgical treatment was necessary. The big problem confronting the surgeon contemplating conservative surgical therapy is the need for reliable criteria on which to predict healing at functional amputation levels. The amputation level decided upon depends upon the degree of infection, the extent of gangrene, the severity of arterial involvement, the condition of the proximal tissues and the amount of pain. Unfortunately the guidelines are not always precise and the decision is often difficult.

In an attempt to improve the rehabilitation of diabetic patients with foot problems, Smith and Casingal adopted a conservative approach to the problem. They tried to limit the surgery to debridement, or incision and drainage, whenever possible. If amputation was necessary, it was done at the most distal level consistent with healing and with function.

In 106 diabetic patients with foot lesions admitted to their orthopedic service during a three-year period from 1964 to 1967, the extent of the lesions varied. All patients were treated as conservatively as possible. On admission the diabetes was brought under control, weight-bearing was discontinued, soaks and local treatment were instituted. Patients with gangrene or abscesses were evaluated for operative treatment.

Thirty-three patients were treated non-surgically. Six required incision and drainage; amputation of one or two toes was necessary in 13 cases; transmetatarsal amputation was carried out in 13 patients; below-the-knee amputation was performed in 41 of the group; and in 4 patients above-the-knee amputation was performed. Amputation at a higher level was necessary in only four patients, and the initial operations had been at a transmetatarsal level. There were seven deaths.

Though hospitalization was somewhat longer than for the patients in other reported series, it was emphasized that the patients in this study remained until rehabilitation was complete. The number who were prosthetically rehabilitated turned out to be surprisingly high —33 of 35 with below-the-knee amputations, and 2 of 4 with above-the-knee amputations. Although the time from amputation to prosthesis was less than in most reported series, the authors thought that new techniques of immediate postoperative prosthesis-fitting will further reduce this interval and shorten the period of hospitalization.

They concluded that amputation can be done at lower levels than have been recommended previously. Success with limited operative treatment depends upon careful handling of tissue. Even in pulseless feet healing will take place following debridement, incision and drainage, and single-toe amputations. The spread of infection can be stopped by incision and drainage. However when foot-pulses were absent, transmetatarsal amputations did not heal. In the absence of peripheral pulses and with failure of local measures, below-the-knee amputation becomes necessary.

In their series below-the-knee amputations were done for all patients needing major amputations, except for those in whom proximal tissue damage was too great for the preservation of a functional below-the-knee stump. Surprisingly, below-the-knee amputations healed in many patients with absent popliteal pulses. In the absence of femoral pulses, aortograms are recommended. Surprisingly, 25 of the 41 below-the-knee amputations healed primarily, and 10 either had secondary healing or required local revision. It was not necessary to convert any below-the-knee amputations to ones above the knee level. The six deaths in the below-the-knee amputees were ascribed in part to a too enthusiastic initial program of early ambulation and immediate prosthesis-fitting. One unexpected result was that 33 of the 35 patients who survived below-the-knee amputations wore artificial limbs successfully, and those included six of the seven in whom amputations were bilateral.

The authors conclude that diabetic patients with limited surgical treatment of their foot problems are rehabilitated faster and better than those with major amputations. They emphasize that to be successful, conservative amputations must be done carefully, with gentle handling of tissues. They assert that the only indication for above-the-knee amputation is proximal tissue damage too severe for the preservation of a useful below-the-knee stump.

THE AMA WANTS TO COOPERATE

At a meeting of the Iowa Society of Osteopathic Physicians and Surgeons, in Des Moines late in March, J. Scott Heatherington, D.O., president-elect of the American Osteopathic Association, was a guest speaker, and his remarks were reported in the press. If the DES MOINES REGISTER for March 25 quoted Dr. Heatherington accurately, he made a special effort to reopen old wounds which, in Iowa at least, were for the most part healed by primary intention as a result of conscientious effort by men of good will working in concert, and in an atmosphere of mutual trust and respect.

The Oregon osteopathic physician resorted to old shiboleths which are moss-covered and have no place in the dialogue between dedicated men. Among his many complaints against organized medicine was the charge that the AMA has opposed "even the mildest and most constructive medical reforms," including compulsory smallpox vaccination, diphtheria immunization, public venereal-disease clinics, federal grants to medical schools, free centers for cancer diagnosis and Medicare. This record, he contended, is in contrast to that of his own organization, which "has repeatedly stated that it will support all programs that improve the health and welfare of the American people."

He also asserted that the AMA, in urging hospitals to accept doctors of osteopathy as interns and residents and in recommending that county and state medical societies accept doctors of osteopathy as members, is simply attempting to eliminate a strong and competitive profession which it considers a rival and a threat. He reluctantly acknowledged that the AMA has made a modest contribution to American health care, but he asserted that throughout the past 40 years its policies have been motivated by self-interest. He said that it is this same self-interest which prompts the AMA to seek a merger of the two professions, and that "elimination of the osteopathic profession will benefit nobody but the AMA itself."

If Dr. Heatherington thinks that the American doctor of medicine fears competition from the osteopath and believes that the osteopath constitutes a threat to his livelihood, he should follow in the footsteps of the average M.D. for 24 hours!

The AMA has made overtures to the American Osteopathic Association and to individual osteopathic physicians in good faith. The remarks of the president-elect of the "rival" organization were in poor taste, and unquestionably are a source of embarrassment to many individual osteopathic physicians.

The words of St. Paul to the Corinthians are apropos: "Charity suffereth long and is kind; charity envieth not; charity vaunteth not itself, is not puffed up."

Automated Multiphasic Screening and Periodic Health Examinations

(Continued from page 413)

tually a part of the multiphasic health check. We do over 100,000 vaginal-cervical smears per year in a population of 800,000 persons. I estimate that about 60 per cent of our women over 35 years of age have annual smears. That figure includes both those who are screened and those who make clinic visits. We feel that the smears should be obtained by the physician, who can perform a thorough gynecologic examination. Similar comments apply to sigmoidoscopy.

The patient does not see a physician during his visit to the MHC itself; it is regarded as a preparation for a later visit to a physician.

Questioner: Is there an age limit?

Dr. Morgenstern: We have no age limits. The program is designed for adults, but a few teenagers have gone through. I think our youngest patient was 11. In San Francisco a new "Pediatric Multiphasic" is being developed.

The Iowa Medical Society's "blanket" accident policy covers officers, committee members, delegates to annual or special conventions and employees, each in the maximum amount of $50,000 for death or injuries incurred while traveling on behalf of the Iowa Medical Society. The blanket policy excludes coverage for a physician or employee while acting as a pilot or crew member in a private aircraft.

INFORMATION FROM THE
IOWA HEART ASSOCIATION

Cardioversion

BERNARD LOWN, M.D.
Boston, Massachusetts

It is now six years since the introduction of cardioversion as a method for terminating arrhythmias. To date, many thousands of patients have been successfully treated, and this extensive experience provides an adequate basis for assessing the advantages and limitations of cardioversion. Ectopic tachycardias in the past have been controlled by means of drugs. Anti-arrhythmic agents, however, have a number of limitations. To reach an effective dose requires a time-consuming biologic titration involving frequent if not continuous monitoring of patients, and regardless of the precautions that are taken, serious side effects frequently occur. Furthermore all anti-arrhythmic drugs, when given rapidly or in large doses or when administered intravenously, depress myocardial contractility and reduce peripheral resistance. This may prove especially dangerous in the presence of an arrhythmia which already has compromised cardiac reserve.

METHOD AND RATIONALE

The majority of human tachyarrhythmias are self-sustaining by virtue of recirculation of an excitable stimulus over a fixed or variable pathway. When the pathway is blocked, the ectopic mechanism is extinguished, and the sinus node resumes its usual role as dominant pacemaker. Such a block can be induced by an electrical pulse which depolarizes the entire heart and thereby momentarily abolishes all excitable activity. The hazard of electrical shock—namely, cardiac asystole and ventricular fibrillation—can be prevented by the use of brief direct current (DC) pulses and by discharging these pulses into a safe part of the cardiac cycle. The dangerous part of the cycle occurs at the time of inscription of the apex of the T wave. Electrical energy triggered into the heart during the vulnerable period results in ventricular fibrillation. Transthoracic DC shocks synchronized to discharge outside the T wave are both effective and safe for terminating a diversity of arrhythmias.

Dr. Lown is a staff member of the Medical Clinics of the Peter Bent Brigham Hospital, and of the Cardiovascular Laboratories of the Department of Nutrition, Harvard School of Public Health.

THE TECHNIQUE OF CARDIOVERSION

Since the most common disorder treated by means of cardioversion is chronic atrial fibrillation, the steps to be described apply especially to this arrhythmia. However, the same procedure with only a slight modification is applicable to other ectopic mechanisms. In a case of elective reversion the patient is started, one to two days before the procedure, on maintenance quinidine therapy in a dose of 0.3 Gm (5 gr.) q 6 hrs. The objective of administering quinidine is four-fold: (1) to develop adequate serum and tissue levels in order to prevent prompt recurrence of the arrhythmia; (2) to determine whether quinidine is well tolerated; (3) to obtain a small dividend of reversions observed in about 10 per cent of patients with chronic atrial fibrillation while on maintenance quinidine therapy; and (4) to diminish the incidence of ectopic mechanisms immediately following cardioversion. One hour before the procedure 0.1 Gm pentobarbital sodium (Nembutal®) is given orally. Transient amnesia is achieved through the use of diazepam (Valium®) given in a dose of 2.5 mg. intravenously and repeated at two minute intervals until mild anesthesia occurs. This drug is well tolerated, and generally about 10 to 15 mg. produces the desired effect. The two electrode paddles are coated with liberal layers of conductive paste and are applied in a front-back orientation. The anterior paddle is held with pressure on the mid sternum, and the patient lies on the posterior paddle, which is located in the left infrascapular region.

Perhaps the most important aspect of the procedure is to begin with low-energy settings of 1 to 5 watt seconds (WS) and then proceed with higher energies such as 25, 50, 100, 200, 300, up to 400 WS. The practice of energy titration protects against serious complicating arrhythmias. For example, if electric shock provokes ectopic beats at low energies before reversion is achieved, one has the option of postponing the procedure or of administering lidocaine in a bolus of 50 mg. intravenously. If such titration is carried out, it is not necessary to discontinue digitalis drugs prior to cardioversion. The reversion itself takes but a fraction of a second, and the patient is usually awake within a few minutes. When a normal mechanism has been restored, blood pressure generally rises. If the procedure is uncomplicated,

there is no need to monitor the patient for a period longer than one hour.

SELECTION OF PATIENTS

How are patients to be selected for cardioversion? Two questions need to be answered: (1) Is the arrhythmia susceptible to electrical reversion? (2) Will a normal mechanism be maintained for a sufficiently long time? Cardioversion has no place in the treatment of brief paroxysmal arrhythmias, recurring ectopic beats or deranged atrioventricular or intraventricular conduction. It has no effect when the mechanism is sinus tachycardia, a reflex physiologic acceleration of the normal pacemaker which does not yield to antiarrhythmic measures. Similarly, digitalis-induced rhythm disorders are impervious to cardioversion. Furthermore, in the presence of digitalis toxic arrhythmias, more serious and even fatal disorders of the heart-beat may result.

A number of patients are poor candidates for cardioversion, for though sinus rhythm can be established, it cannot be maintained. When quinidine is not tolerated and adverse reactions follow procaine amide, a normal rhythm will not persist. Patients with rheumatic heart disease who have been in continuous atrial fibrillation for more than two years, or those with advanced degrees of mitral regurgitation who display a giant left atrium are unlikely to remain in sinus rhythm long enough to justify cardioversion. The elderly asymptomatic patient with coronary artery disease and atrial fibrillation who exhibits a slow ventricular rate prior to digitalization is an unsuitable subject. Patients who have recurrent paroxysm of diverse atrial arrhythmias should not be reverted once they develop atrial fibrillation. They are less symptomatic with atrial fibrillation than when in sinus rhythm punctuated by frequent paroxysms of tachycardia. Patients should not be reverted before, during, or immediately after valvular operations. It is preferable to wait for ten or more days after surgery, since sinus rhythm is then more likely to be long-lasting.

OVERALL RESULTS

To date, at the Peter Bent Brigham Hospital, 900 patients have been reverted by means of cardioversion. Chronic atrial fibrillation accounted for 650 of these episodes; 150 had atrial flutter, and the remaining 100 had either ventricular tachycardia or varying supraventricular mechanisms. The overall success rate was 95 per cent. These results are the more impressive, since the arrhythmia in many of these patients had proved refractory to large doses of antiarrhythmic drugs. More than 2,000 electrical shocks were employed; yet, there was not a single episode of prolonged cardiac asystole and but one episode of ventricular fibrillation due to a failure to synchronize the shock. Although many of the patients were in critical condition and a number had sustained acute myocardial infarction and were in far advanced stages of congestive heart failure, none died as a result of cardioversion. Serious immediate complications were limited to 10 episodes of ventricular tachycardia. These were of brief duration and readily controlled. Eight of the patients suffered systemic thromboembolic complications within one to eight days following cardioversion.

SPECIFIC RHYTHM DISORDERS

Atrial fibrillation is the most common chronic disorder of the heart beat. One is no longer justified in using quinidine for reversion of this disorder. With quinidine, even when given in large doses, only 50 per cent of patients are restored to sinus rhythm; however 30 per cent experience significant toxic reactions, and 1 to 2 per cent may die from the drug. With cardioversion, atrial fibrillation can be terminated in more than 90 per cent, and the incidence of complications does not exceed one per cent.

Immediately after the cardioversion discharge, there may be transitional mechanisms consisting of nodal rhythm, a shifting pacemaker, and ectopic atrial beats. These are observed in about 50 per cent of patients and continue for 30 to 60 seconds until the sinus node "warms up." With restoration of sinus rhythm, the ventricular rate is slowed. The PR interval is generally full, and not infrequently a first degree heart block is present. The overall hemodynamic state is improved with a rise in cardiac output by about 30 per cent. The most salutary effects are observed in patients who are afflicted with mitral and aortic valvular insufficiency. Maintenance quinidine therapy has to be continued in an adequate dose of at least 1.2 Gm daily which results in a blood level of about 3 mg. per litre. Even with this dose of quinidine, atrial fibrillation will recur within 6 months in 50 per cent of patients.

Atrial flutter is best treated with cardioversion. It is the easiest disorder to terminate electrically. The arrhythmia generally responds to a single low-energy shock of as little as 1 to 5 WS. No serious complications have been encountered.

Supraventricular tachycardias often present complex diagnostic and therapeutic problems. Frequently it is difficult to define the mechanism precisely, whether it is of atrial or nodal origin. It is more important to determine whether digitalis glycosides are responsible for the disordered rhythm. If the arrhythmia is due to digitalis intoxication, electrical shock may provoke lethal disorders of the heart beat. However, when small energies are employed and lidocaine is used to abolish ventricular ectopic beats, the supraventricular arrhythmias can be safely treated with cardioversion. The success rate, however, is only 70 per cent.

Ventricular tachycardia responds well to antiarrhythmic drugs such as procaine amide and lidocaine, and these constitute the preferred therapy. When the arrhythmia, however, is accompa-

For elderly patients
in need of a mild tranquilizer
consider **Tybatran®**
brand of tybamate

(When you consult
the Prescribing Information
you may agree
it makes good sense)



Indications: Tybatran (tybamate) has afforded symptomatic improvement in a variety of psychoneurotic disorders, especially in the treatment of the anxiety and tension components of psychoneuroses. Anxiety states manifested somatically have responded to Tybatran (tybamate).

Tybatran (tybamate) has been useful in the control of agitation in the aged and in the alleviation of some of the adverse emotional accompaniments of senility.

Tybatran (tybamate) has been used with benefit in the treatment of depressive symptoms associated with anxiety and other symptoms of psychoneuroses. However, it is not indicated for primary treatment of depressive states. It is not an antipsychotic agent, although it has been used as adjunctive therapy in some psychotic patients.

Dosage: One 350 mg. capsule, 3 times daily and two at bedtime is suggested as the adult starting dose. Adjust to suit individual requirements. Daily doses above 3000 mg. are not recommended.

Contraindications: Known hypersensitivity to tybamate. Since no studies have been done with this drug in human pregnancy, it should not be used in pregnancy unless the potential benefit outweighs the risk.

Warnings: Administer cautiously to patients receiving phenothiazines or other CNS depressants or having history of convulsive seizures (See Adverse Reactions). Consider possibility of additive actions with alcohol or other psychotropic agents, particularly phenothiazines or MAO inhibitors.

Precautions: Avoid abrupt withdrawal after prolonged use, although withdrawal symptoms have not been reported to date. Exercise caution in addiction-prone individuals. If symptoms of hypersensitivity occur, discontinue at once and initiate appropriate symptomatic treatment. Avoid activities requiring optimal mental alertness if drowsiness or vertigo are present. As with any new drug, use cautiously in patients with history of drug allergies, blood dyscrasias, and hepatic or renal disease; periodic measurements of hepatic, hematopoietic and renal function should accompany prolonged and/or high doses.

Adverse Reactions: Most frequent reactions, rarely requiring discontinuation of tybamate, include drowsiness, dizziness, nausea, insomnia, and euphoria. There have been a few reports of skin rash, urticaria, and pruritus. Rare side effects include hyperactivity, fidgetiness, flushing, and tachycardia, suggesting excessive stimulation; also ataxia, unsteadiness, confusion, feeling of unreality, "panic reaction," fatigue, headache, paresthesias, vertigo, gastrointestinal disturbances, glossitis, and dry mouth. Grand mal or petit mal seizures have been reported in a few hospitalized psychotic patients receiving tybamate (up to 6000 mg. daily) together with phenothiazines and other psychotropic agents, but not with tybamate alone. Consider the possibility of rare, serious adverse reactions such as may occur with the related drug, meprobamate. If excessive amounts are ingested, gastric lavage and symptomatic therapy, including central stimulants as necessary, are recommended. Before prescribing, consult package circular.

Supply: Tybatran (tybamate) is available in green, sealed capsules of three strengths: 350 mg., 250 mg., and 125 mg. Each strength is supplied in bottles of 100 and 500.

A. H. Robins Company, Richmond, Va. 23220

A·H·ROBINS

nied by significant hypotension, or the patient is in pulmonary edema, or the tachycardia has developed in the wake of acute myocardial infarction and does not yield immediately to a bolus injection of lidocaine, cardioversion should be employed promptly.

COMPLICATIONS

The major complication following cardioversion of chronic atrial fibrillation is systemic or pulmonary embolism. This occurs in 1 per cent of patients who have not received anticoagulant drugs. If the reversion is elective and the underlying disease is rheumatic valvular, two or three weeks of pretreatment with anticoagulants is indicated. Aside from thromboembolism, atrial and ventricular arrhythmias may complicate the cardioversion procedure. The atrial mechanisms generally are of three types: (1) delayed warm up of the sinus node manifested by sinus bradycardia, nodal rhythm or escape beats—the so-called "somnolent sinus node syndrome"; (2) increased atrial automaticity demonstrated by single or multiple atrial premature beats at times associated with brief salvos of tachycardia and (3) "sick sinus-node syndrome," a defect in the elaboration or conduction of the sinus impulse characterized by chaotic atrial activity and usually followed by prompt reestablishment of atrial fibrillation.

The ventricular arrhythmias complicating cardioversion are less common but more threatening than are the atrial disorders. These are of two types: (1) ventricular fibrillation, which occurs immediately after delivery of the shock and usually is the result of improper synchronization; and (2) a type which develops after several beats or within a few minutes, and consists of bigeminy or multifocal ventricular ectopic beats which may result in ventricular tachycardia or rarely in ventricular fibrillation. These later arrhythmias are generally associated with excessive digitalis. Lidocaine, in one or more injections of 50 mg. intravenously, is promptly effective.

CONCLUSION

The method of cardioversion is simple and direct. The physician can observe the entire process of reversion. It does not require a great investment of time by either patient or physician, and it is applicable to diverse arrhythmias. Differentiation between ectopic disorders, essential in the use of drugs, ceases to be a critical requisite for effective therapy.

Cardioversion is not accompanied by significant or serious complications. There is no depression of contractility, conductivity or excitability of the heart—a common sequel after large doses of antiarrhythmic drugs. The method of cardioversion can be readily mastered by the general physician.

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U. of I. Conference on Human Transplantation

A Conference on Human Transplantation, with registration limited to 250 participants, will be held in the Pharmacy Auditorium at the University of Iowa on Saturday, May 10. The program has been accredited for 6½ hrs. by the American Academy of General Practice. The registration fee is $25, and advance registration is essential. Physicians who plan to drive their cars to the campus should request parking permits ahead of time, also.

9:05 a.m. "Recognition of the Contributions of Elmer DeGowin, Robert Hardin and John Alsever to Blood Banks and Transfusion Techniques"—William B. Bean, M.D.

9:15 a.m. "Classification of Immune Responses"—Paul M. Seebohm, M.D.

9:35 a.m. "Role of Mononuclear Cells in the Allograft Reaction"—William O. Rieke, M.D.

9:55 a.m. "Pathogenesis of Immune Injury"—Hal B. Richerson, M.D.

10:30 a.m. "Specific Regulation of the Immune Response"—Frank W. Fitch, M.D., professor of pathology, University of Chicago

11:00 a.m. "Corneal Transplants; Pathological Features and Clinical Results"—Fred C. Blodi, M.D.

11:15 a.m. "New Method for Control of Immunological Problems From the Rh-Incompatible Pregnancy"—Charles A. White, M.D.

11:30 a.m. "Current Status of Heart Transplantation" —Robert D. Bloodwell, M.D., assistant professor of surgery, Baylor University School of Medicine

1:30 p.m. "Transplantation of the Liver and Other Organs"—Samuel L. Kountz, M.D., associate professor of surgery, University of California

2:00 p.m. "Renal Transplantation: Techniques and Results"—William W. Bonney, M.D., surgical research fellow, Massachusetts General Hospital

2:30 p.m. "Medical Problems in Patients After Renal Transplantation"—George B. Theil, M.D.

2:45 p.m. "Determination of Histocompatibility and Correlation With Clinical Transplantation" —John S. Thompson, M.D., associate professor of medicine, University of Chicago

3:30 p.m. PANEL DISCUSSION: SELECTION AND PREPARATION OF PATIENTS FOR RENAL TRANSPLANTATION— W. M. Kirkendall, M.D., Richard L. Lawton, M.D., and Drs. Thompson, Theil, Bonney and Kountz

4:30 p.m. DEVELOPMENT OF THE RENAL TRANSPLANTATION PROGRAM AT THE UNIVERSITY OF IOWA
"Introductory Comments"—J. W. Eckstein, M.D.
"Role of the Veterans Hospital in the Program"—R. D. Eckhardt, M.D.
"Target Dates"—Dr. Bonney
"Supporting Laboratory Facilities"—Dr. Thompson
"Needs of the State of Iowa"—Dr. Kirkendall

Reasons Why Doctors Shun, or Are Attracted to, Small Towns

The American Medical Association's Council on Rural Health surveyed a random sample of 2,468 physicians practicing in non-metropolitan areas of the U. S. in 1967 through a questionnaire entitled, "Medical Practice in Small and Large Communities."

The questionnaire, which covered 71 items, was divided into three categories: (1) background material; (2) medical practice organizations; and (3) factors associated with practice and community.

Among the major findings were the following:

a) "Nearly one-half (49 per cent) of the physicians reared in towns under 2,500 were practicing in a similar-sized town, while the same percentage held true for physicians practicing in non-metropolitan cities of 25,000 or more and who were reared in cities of this size. The results would seem to indicate that the best chance of securing physicians for the smaller-sized communities is to have more young men with such a background enter the study of medicine.

b) "In regard to finding the location to practice, a hometown preference or suggestions of friends were most often listed, followed by nearby place of internship, as well as assistance of state and AMA physician placement services.

c) "Limited accessibility to continuing medical education programs and lack of opportunities for professional growth were of concern to the respondents, and in particular to those practicing in the isolated rural counties.

d) "Physicians who liked rural practice and living did so because of the feeling that rural people were friendly and dependable, thus resulting in close, personal ties with the people; because they liked to be near the open country for recreation; because of the decreased traffic and confusion and the slower pace; and because relationships with their patients were pleasant.

e) "They indicated reasons for dissatisfaction with their present location centered around community limitations such as lack of social and cultural activities; a shortage of physicians and other health personnel; a lack of educational facilities; and inadequate living conditions."

To obtain a complimentary copy of the complete summary listing the 14 major findings of the comprehensive study, please direct your request to the AMA Council on Rural Health, 535 North Dearborn Street, Chicago, Illinois 60610.

Plan to attend 118th
AMA Annual Convention
New York City
July 13-17
Look for complete program
in May 26 issue of JAMA.

in cerebrovascular disorders

Arlidin increases blood flow

Arlidin decreases cerebral vascular resistance, increases cardiac output, helps maintain mean arterial pressure.

Arlidin helps control vasoconstriction, vasospasm, and ischemia.

Arlidin may thus relieve symptoms of cerebrovascular insufficiency, such as vertigo, lightheadedness, and mental confusion.

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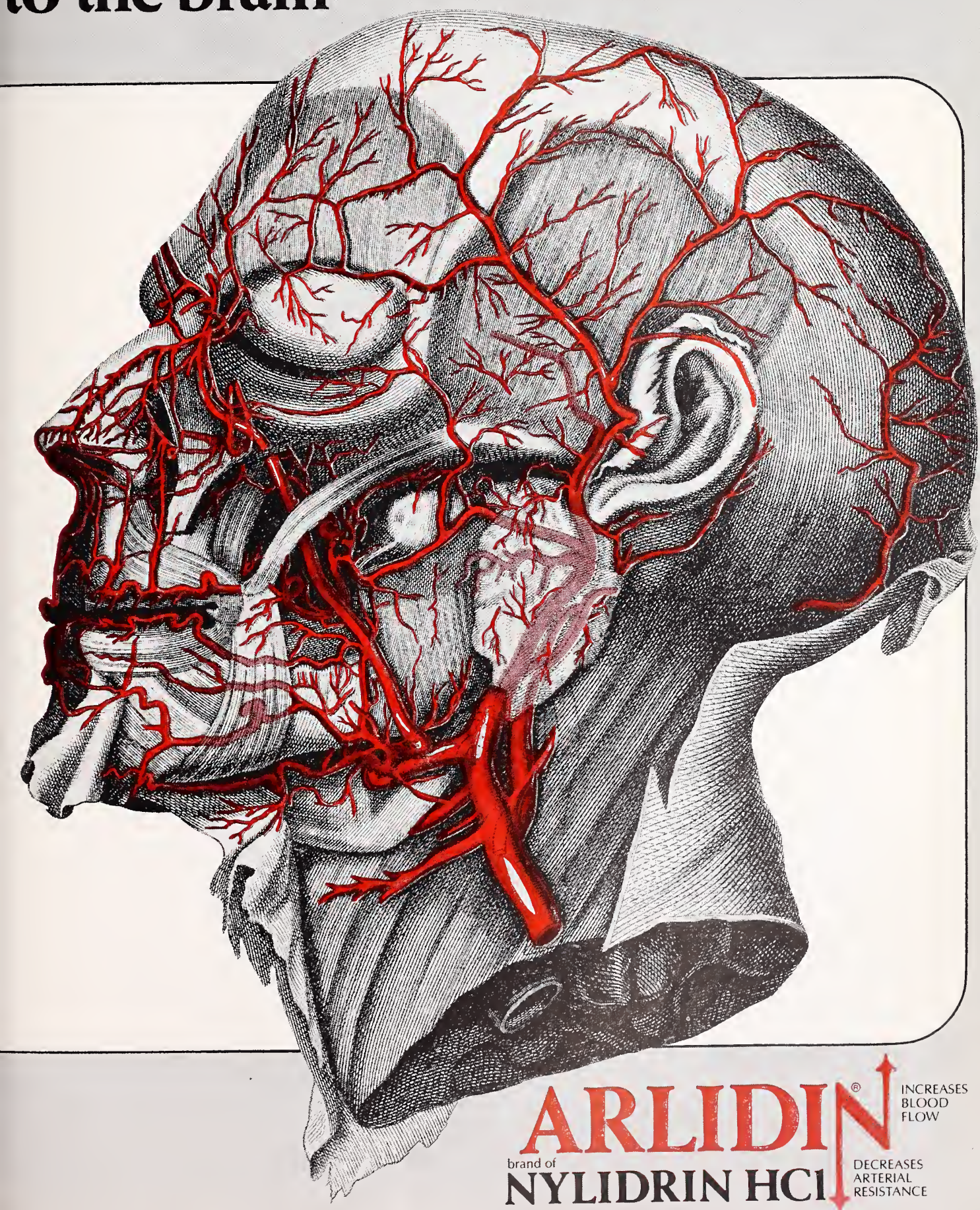
Arlidin is well tolerated and relatively free of severe adverse reactions.

DOSAGE: Usual effective dosage ½ to 1 tablet t.i.d. or q.i.d.; increased, if necessary, to 2 tablets t.i.d. or q.i.d. Parenterally, 0.5 cc. by subcutaneous or intramuscular injection; increased gradually to 1 cc. one or more times daily, as needed. SIDE EFFECT: Occasional palpitation. PRECAUTIONS: Use with caution in the presence of a recent myocardial lesion, paroxysmal tachycardia, severe angina pectoris, thyrotoxicosis. CONTRAINDICATION: Acute myocardial infarction.
SUPPLIED: Tablets, 6 mg., scored; bottles of 100 and 1000. Parenteral, 5 mg. per cc., 1 cc. ampuls (5 per box); 10 cc. multiple-dose vials (1 per box).
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INCREASES BLOOD FLOW

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Iowa Association of Medical Assistants

IAMA Annual Meeting

Hotel Black Hawk, Davenport
May 16-18, 1969

Friday, May 16

5:00-8:00 p.m. REGISTRATION, Mezzanine Lobby
8:00 p.m. VISIT YOUR CANDIDATES
8:00 p.m. EXECUTIVE COUNCIL MEETING, Pompeian Room

Saturday, May 17

8:00 a.m. REGISTRATION
8:00-10:00 a.m. CONTINENTAL BREAKFAST, courtesy of Blue Cross and Blue Shield, Skyline Room
8:30 a.m. HOUSE OF DELEGATES MEETING AND ELECTION OF OFFICERS, Continental Room

EXHIBIT AREA OPEN, MEZZANINE LOBBY

10:30 a.m. GENERAL ASSEMBLY, Gold Room West
Invocation—Rev. C. H. Meyer
Welcome—Mrs. Ann Underdonk, president of the Scott County Chapter
Welcome—Hon. John Jebens, mayor of Davenport
Welcome—Erling Larson, Jr., M.D., president of the Scott County Medical Society
President's Address—Mrs. Jeanne Green

11:15-12:00 noon PROFESSIONAL ANALYSIS, PART I
1. Public Relations
2. Communications
3. Inter-office Adaptability
4. Professional Skills

12:15 p.m. LUNCHEON
Speaker: Mrs. Robert Longley
"The Story Behind the Miss America Pageant"

2:00-4:00 p.m. PROFESSIONAL ANALYSIS, PART II
Moving-picture dramatizations of problem situations, and a Question-and-Answer session

EXHIBIT AREA OPEN, MEZZANINE LOBBY

6:30 p.m. SOCIAL HOUR, Gold Room West
7:30 p.m. BANQUET
Master of ceremonies, James F. Bishop, M.D., Davenport
Entertainment: UP WITH PEOPLE CHORUS, courtesy of Mr. Archie Frye, Pfizer representative
INSTALLATION OF OFFICERS—Mrs. Dorla Sansom, installing officer

Sunday, May 18

8:30 a.m. CONTINENTAL BREAKFAST, courtesy of Schlegel Drug Stores, Empire Room

9:30 a.m. PROFESSIONAL ANALYSIS, PART III, Gold Room West
Patients speak about attitudes, techniques and appearance of medical assistants
1. A teenager
2. A young adult
3. An over-50 adult

10:30 a.m. PROFESSIONAL ANALYSIS, PART IV
The Doctor Speaks—Faye C. Lewis, M.D., Webster City

12:00 noon LUNCHEON, Gold Room East
Committee Announcements

1:00 p.m. POST-CONVENTION BOARD MEETING, Pompeian Room

Register in advance and send your registration fee to Mrs. Alice Diehl, Credentials and Registration Chairman, 307 Professional Arts Building, 121 West Locust Street, Davenport 52803. The $17.50 fee will pay for all meals and the educational program. Make hotel reservations by writing or phoning Hotel Blackhawk.

Hawaii Calls—Iowa Answers

Attend the AAMA's Hawaii Convention, October 15-19, 1969, and Help Promote the 1970 AAMA Convention in Iowa!

Round-trip air fare from Des Moines $329.00

Registration Package (including hotel accommodations—two-person occupancy—for three nights, transportation in Hawaii, etc.) 99.00

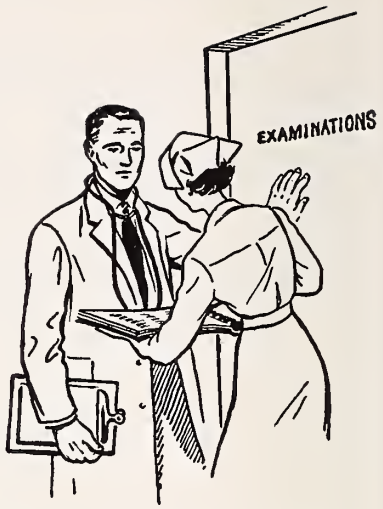
Basic tour cost $428.00

Husbands and other family members, and friends are eligible for the special air-travel rates granted to the AAMA.

Use the registration form that has been sent you, or if you can't find it, request another. Address Mrs. Marian Little, 221 Twenty-third Street Northeast, Cedar Rapids 52402.


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What's your excuse?

THE DOCTOR'S BUSINESS



Combatting the Paper Explosion

LARRY E. LEAVERTON
Des Moines

Someone has estimated that a million pages of new documents are produced every minute. The copy-machine industry estimates that copiers and copier-duplicators are disgorging 35 billion copies per year!

There are a number of ways to cope with this paper explosion. In business and industry detailed record-retention schedules are established which allow for the discard of worthless papers which have been occupying valuable space. Microfilm is frequently used for permanent files. In medical offices the problems are somewhat different, for the accumulated paper includes patients' medical records, x-rays and laboratory reports, and data with which to substantiate information on tax returns.

Some physicians feel an obligation to keep medical records and x-rays indefinitely. Others destroy those that contain no permanently significant information, after keeping them for a reasonable length of time. For purposes of defense against a malpractice suit, records must definitely be retained for the length of time specified by the statute of limitations. In the case of a minor, that period extends for some time after he reaches his majority. Financial records must be retained for tax purposes. Revenue agents will agree that it is not realistic for them to expect taxpayers to keep records forever, but where there are grounds for suspecting fraud or a gross understatement of income, they can request records back beyond the normal three-year statute of limitations on tax audits.

When records are to be discarded, you should be certain that the confidential ones are destroyed by incinerating, paper-shredding or tearing. One physician discovered that the waste paper from his office was simply being unloaded at the city dump!

If you have a records problem, the trouble could be in your filing system. The personnel in many offices think they have a space problem until they examine the contents of their files. We frequently see "current" files that contain records dating back many years, to the start of the practice. A good place to begin is with your patients' histories. The histories to place in the inactive files will vary, of course, with your type of practice, but normally those of the patients who have died, have changed doctors or moved away, or have not been in the office for anywhere from two to five years can go into the inactive files. To make the transfer easier, the file folder can be date-stamped each time a patient comes in. Another method calls for the use of colored tabs. The first time a patient comes into the office in a new year, a colored tab is placed on his history folder. At the start of the next year, a different color is used. Then, if it is your policy to transfer files from "active" to "inactive" after two years, for example, the folders to be moved are clearly identifiable.

Besides saving space, a periodic review of your files will make your filing more efficient. The more histories or other papers you have in your files, the more time will have to be spent in filing, retrieving and locating missing data. Financial records retained for tax purposes should be filed year by year in boxes with appropriate labels. Consult your tax advisor before destroying financial records. Correspondence, journals and catalogs should be discarded when they are no longer pertinent or current. You can keep journal items of interest in a clipping file.

Your problem may be your filing system itself. Filing in a medical office must be planned just like any other office procedure. The type of filing system suitable for your office will depend upon individual circumstances, but a simple basic system will include these features:

1. *Patients' financial records*—filed alphabetically with sufficient indexes, and divisions for "active," "paid in full," "collection," and "delinquent." There should be adequate fire protection for the "active" file.

Mr. Leaverton has been associated with Professional Management Midwest since 1949. He is a partner in the firm, and is director of its Research and Development Department.

2. *Patient histories*—filed alphabetically with space for correspondence and reports pertaining to the history. There should be divisions for "active" and "inactive."

3. *General Files:*

A. Correspondence not pertaining to patients, classified by subject or alphabetically by the senders' names

B. A separate "paid bills" file folder for each month

C. An "accounts payable" file for invoices and unpaid bills

D. Classifications for "payroll taxes," "income taxes," "business insurance," etc.

E. Technical data pertaining to your specialty

F. Supply catalogs

G. Office manuals.

If space is still a problem after you have cleared the dead wood from your files, you may need more file space. Filing efficiency is dictating a trend toward open-shelf or shelf files. Conventional three-, four- or five-drawer file cabinets require additional room in which to pull out the drawers. Moreover, time must be spent opening and closing drawers, and because file folders must be read from the top, filing cannot be done above eye level, and only one girl can use a file cabinet at any one time. Shelf files save both space and time. Visibility will speed filing and retrieval. Color-coded tabs will further increase efficiency by reducing the amount of misfiling. Shelf files can be purchased with doors in decorator colors.

A systematic, orderly system kept current by means of a rigorously followed schedule for storage or destruction of old records will protect you from the paper explosion.

The JOURNAL plans occasionally to print pictures taken at medical meetings. Please send black-and-white prints that you have snapped at your meeting, with the names of the doctors pictured and a brief résumé of the program.



THE BETTMANN ARCHIVE

Just one tablet at bedtime • Prevents painful night leg cramps • Permits restful sleep

How many of your patients stamp their feet at night and lose sleep because of painful leg cramps? Unless prompted, they usually fail to report this distressing condition and suffer needlessly.

One tablet of QUINAMM at bedtime usually controls distressing night cramps and permits restful sleep with the initial dose.

Prescribing information—Composition: Each white, beveled, compressed tablet contains: Quinine sulfate, 260 mg., Aminophylline, 195 mg. **Indications:** For the prevention and treatment of nocturnal and recumbency leg muscle cramps, including those associated with arthritis, diabetes, varicose veins, thrombophlebitis, arteriosclerosis and static foot deformities. **Contraindications:** QUINAMM is contraindicated in pregnancy because of its quinine content. **Side Effects/Precautions:** Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. Discontinue use if ringing in the ears, deafness, skin rash, or visual disturbances occur. **Dosage:** One tablet upon retiring. Where necessary, dosage may be increased to one tablet following the evening meal and one tablet upon retiring. **Supplied:** Bottles of 100 and 500 tablets.

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Psycho-abdominal Distress: Frequently Female

Women aged 15 to 45 appear to be more prone than men to bloating, cramping pain of stress-related intestinal disturbances such as irritable or spastic colon.[1,2]

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In the experience of many physicians, women are more likely to reappear time after time with repeated complaints of lower G.I. distress.

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Often needed is therapy adequate to control both the somatic and the emotional components of psycho-abdominal complaints.

Definitive Dual Therapy

'Milpath' contains a proven synthetic anticholinergic useful for relieving hypermotility, spasm, and hypersecretion of the gastrointestinal tract.

In addition, 'Milpath' provides a time-tested tranquilizer for mild but effective anti-anxiety action.

With Flexible Dosage

- 'Milpath'-400 (meprobamate 400 mg. + tridihexethyl chloride 25 mg.) Usual adult dose: 1 tablet *t.i.d.* and 2 at bedtime.
- **When less tranquilization is required: 'Milpath'-200 (meprobamate 200 mg. + tridihexethyl chloride 25 mg.)**

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MILPATH®

(meprobamate + tridihexethyl chloride)

relaxes smooth muscle and psyche

Please see the following page for brief summary of prescribing information.

Gently but firmly MILPATH®

(meprobamate + tridihexethyl chloride)

Relaxes smooth muscle and psyche



Usual Adult Dosage

One 'Milpath'-400 tablet, three times a day at mealtimes, and two at bedtime. For greater anticholinergic effect, two 'Milpath'-200 tablets, three times a day at mealtimes and two at bedtime. Doses of meprobamate above 2400 mg. daily not recommended.

Indications

Useful in organic and functional disorders with hypersecretion and hypermotility of G.I. tract, especially when accompanied by anxiety, neurosis, or tension states. Should be used as an adjunct to all other therapeutic measures.

Contraindications

Tridihexethyl chloride: Urinary bladder-neck obstructions, e.g., prostatic obstruction due to hypertrophy; pyloric obstructions because of reduced motility and tonus: organic cardiospasm (megaesophagus); glaucoma; possibly in stenosing gastric or duodenal ulcers with significant gastric retention.

Meprobamate: Previous allergic or idiosyncratic reactions to meprobamate.

Precautions

Tridihexethyl chloride: Use cautiously in elderly males (possible prostatic hypertrophy).

Meprobamate: Carefully supervise dose and amounts prescribed. Consider possible dependence or habituation (reported occasionally after excessive use), particularly in severe psychoneurotics, alcoholics, ex-addicts. Withdraw gradually (one or two weeks) after excessive dosage for weeks or months to avoid recurrence of pre-existing symptoms (e.g., anxiety, anorexia, insomnia) or withdrawal reactions (e.g., vomiting, ataxia, tremors, muscle twitching; rarely, epileptiform seizures, more likely in those with CNS damage or latent convulsive disorders). If drowsiness or visual disturbance occurs, reduce dose and advise against activity requiring alertness (driving, machinery operation). Effects of excess alcohol may be increased. Grand mal seizures possible in persons with both petit and grand mal. Prescribe cautiously in small amounts to patients with suicidal tendencies. Prescribe with caution to patients with known sensitivity to compounds of similar chemical structure, e.g., carisoprodol.

Side Effects

The following side effects of components may occur with 'Milpath'.

Tridihexethyl chloride: Severe effects rare on recommended dosage. Anticholinergic effects: dry mouth (fairly frequent at oral doses of 100 mg.), constipation or "bloated" feeling. Possible: tachycardia, dilation of pupils, increased ocular tension, weakness, nausea, vomiting, headache, drowsiness, urinary hesitancy or retention, dizziness.

Meprobamate: Drowsiness, sometimes with ataxia, usually controlled by decreasing dosage, occasionally with aid of central stimulants (e.g., amphetamine). Rarely, allergic or idiosyncratic reactions (usually after one to four doses); in mild form: itchy, urticarial or erythematous, maculopapular rash, generalized or confined to groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever, transient leukopenia, and one fatal bullous dermatitis (after meprobamate and prednisolone) reported. More severe, very rare hypersensitivity: fever, chills, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (one fatal), anuria, anaphylaxis, stomatitis and proctitis. Treat symptomatically (e.g., epinephrine, antihistamines, possibly hydrocortisone); stop and do not restart the drug. Isolated agranulocytosis, thrombocytopenic purpura, one fatal aplastic anemia reported, but only in presence of known toxic drugs, porphyric symptoms reported but relationship not established. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation reported by one observer. Fixed drug eruption with meprobamate and cross reaction to carisoprodol reported.

Suicidal attempts may produce drowsiness, lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse, and death. Excessive dosage has led rapidly to sleep, then reduction of vital signs to basal levels. Empty stomach, and if respiration becomes very shallow and slow, cautiously give CNS stimulants (e.g., caffeine, pentylenetetrazol, amphetamine); also pressor amines if indicated.

Supplied

In two strengths:

'Milpath'-400: Yellow, scored tablets.

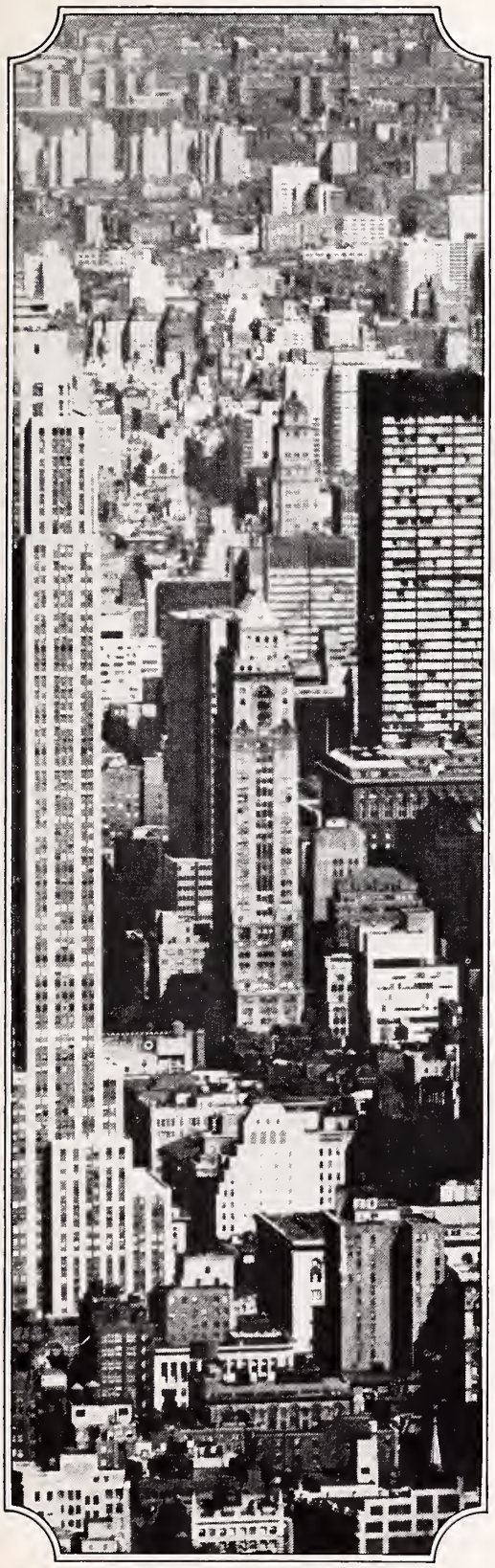
'Milpath'-200: Yellow, coated tablets.

Before prescribing, consult package circular.

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1. Harrison, T. R., et al.: Principles of Internal Medicine, Fifth Edition, New York, The Blakiston Division, McGraw-Hill Book Company, 1966, p. 1019. 2. Bockus, H. L.: Gastroenterology, Second Edition, Philadelphia & London, W. B. Saunders Company, 1964, Vol. II, p. 729 et seq.

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118th Annual Convention AMA NEW YORK CITY JULY 13-17, 1969

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NEW YORK CITY, NEW YORK • JULY 13-17, 1969
AMERICAN MEDICAL ASSOCIATION'S 118th ANNUAL CONVENTION

STATE DEPARTMENT OF HEALTH



JAMES F. SPEERS, M.D., M.P.H., COMMISSIONER

Local Public Health Progress

RONALD D. ECKOFF, M.D., M.P.H.
Chief, Community Health Service

There has been much improvement in the local public health situation in Iowa in the past four years, but there is still a great deal of change and improvement needed. In 1965, the Community Health Service of the Iowa State Department of Health conducted a survey of the status of local health services. Replies were obtained from 96 of the 99 counties. It was found that of the counties replying, only seven county boards of health held regularly scheduled meetings. Fifty-four county boards of health stated that meetings were held only occasionally or "on call." At the time of the survey, 46 counties had visiting nurses, county public health nurses or both. Only six counties employed sanitation officers. Investigation of the financial and taxing ability of the 99 counties indicated that 20 counties had reached their tax millage limits, and therefore could provide no further health services. Fifty-two counties had the taxing power to increase health services somewhat, but not to a level considered adequate.

A major step forward was made with the passage of the Local Health Act (Chapter 163, Acts of the 62nd General Assembly) on June 29, 1967. The Act required the board of supervisors of each county to appoint a five-member county board of health, including at least one physician. In addition, cities over 25,000 population were given the option of continuing to have a city board of health, and a mechanism was provided for the creation of local health districts by combining two or more county boards, or city and county boards of health. (It has since been ruled that the law is not specific enough to allow the development of rules and regulations regarding districts, and that amendments are necessary.) The powers of the local boards include:

(1) enforcement of state laws and regulations.

(2) passage of local rules and regulations, following public hearing, publication, and approval by the board of supervisors or city council.

(3) cooperation with cities and towns in the enforcement of city ordinances.

(4) employment of necessary personnel.

(5) provision of personal and environmental services (primarily public health nursing and sanitary inspection).

(6) program development in cooperation with other agencies.

(7) charging of fees to those who can afford to pay for personal services (This makes possible the participation of nurses in the Medicare program, if other conditions are met).

(8) issuance of licenses or permits in specified program areas.

These powers are subject to the restriction that they may not unreasonably interfere with the existing patterns of private professional practice of licensed practitioners of the healing arts.

Unfortunately, the Act did not provide any state money for the local boards, or allow counties to appropriate money other than from the general fund. This has greatly hindered many counties from getting an active start, for as mentioned earlier, they do not have enough taxing power to provide health services at all or to increase them to adequate levels.

All counties have appointed boards of health under the new Act. The boards vary from very active to quite inactive. Many of the least-active county boards are in the counties which have no money available at all, and many of the more active boards are in counties with a relatively adequate financial situation. Many of the county boards are now receiving nuisance complaints, and are recognizing their need for the services of a sanitarian.

Another change in the past four years has been the advent of Medicare, which has stimulated increased interest in home health services, among other things. There are now 30 certified home-health agencies in Iowa serving cities and counties with a total population of 1,400,000. Each home-health agency provides skilled nursing care and at least one other home service (physical therapy, occupational therapy, speech therapy, medical social services, home health aide service).

In addition to the areas served by certified home health agencies, there are many counties with the services of a public health nurse, and five counties which have a budget for a public health nurse and hope to hire one soon. However, there are still 26 counties with a total population of 370,000

which have no nursing service either available or planned. An increasing number of counties now have two or more full-time public health nurses, and many counties are using part-time nurses to help provide home health care. However there are still very few counties with a nursing staff sufficient to meet the needs for preventive services, educational services and personal health services in the home. In many areas in fact, one nurse still serves a population of 10,000, 20,000, or even 30,000, rather than the desired ratio of one nurse to every 2,500 people.

In the future it is hoped that at least the basic services of public health nursing and environmental health services can be made available on the local level throughout Iowa. This can be accomplished by active local boards of health with adequate budgets to hire public health nurses and sanitarians and to conduct other programs as needed. To cover the state appropriately would probably require county boards of health in some areas and district boards of health in the remaining areas (allowing two or more counties to form a combined local health unit to serve a sufficient population to allow efficient operation and effective use of personnel). To accomplish this goal the local boards of health need a more adequate source of funds. A combination of state and local funds would provide a possible solution. There is a need for an annual state appropriation of $2,000,000-$2,500,000 for distribution to the local boards for local health services. This could be divided by a formula taking into account population and assessed valuation. In addition, permissive legislation to allow counties to levy a small tax for public health would help counties in which the general fund is insufficient to support local health services. If such money were available, Iowa could continue to move toward providing adequate local health services to all of the people of the state. A bill to provide this dual financing was prepared and presented to the Legislature, but failed to move out of the subcommittee, primarily because the legislators had not heard from their constituents that there were local public health problems or that local boards of health lacked sufficient financial resources. It is hoped that between sessions of the 63rd General Assembly, physicians and others interested in public health will discuss these matters with their legislators.

Have you moved in the past few months? PLEASE send any changes of address to 1001 Grand Avenue, West Des Moines, Iowa 50265. Communication is a necessity: Do help keep our mailing list up to date. You are our best source of accurate information.

Correction of False Reports About Fluoridation

Many people have been misled, and some of them have been unduly alarmed, by recent news articles which have discussed the medical problems that may arise from the use of tap water in artificial-kidney equipment. The confusion was stimulated by an article that appeared initially in the March issue of the SATURDAY REVIEW. It was written by the magazine's science editor, Mr. John Lear, who for the third time in as many years wrote critically of fluoridation and raised questions about its safety. His article was reprinted on the front page of the March 16 issue of the DES MOINES SUNDAY REGISTER.

Mr. Lear charged that fluoridated water in hemodialysis machines cripples and may even kill kidney patients. His article also suggested that drinking fluoridated water may be dangerous for any person with a kidney disorder.

The National Institute of Arthritis and Metabolic Disease, which conducts a national research program on artificial kidneys, has commented that fluorides in water *used for hemodialysis* can be harmful, *but so can water containing any of the other trace elements.* The Institute has also pointed out that hemodialysis units now routinely use deionized water in order to avoid not just fluorides but all other minerals as well.

Following is a statement recently issued by William H. Stewart, M.D., the USPHS surgeon general, which placed the relationship between fluoridation and the use of fluoridated water in hemodialysis in proper perspective.

The USPHS, the Iowa State Department of Health and the Iowa Dental Association endorse water fluoridation as a safe and effective public health measure for the prevention of dental caries, and they urge all communities to make it available to their people.

THE USPHS SURGEON GENERAL'S STATEMENT

"Consumers of public water supplies enriched with minute quantities of fluoride in order to prevent tooth decay should not be misled by news articles which mention medical problems that may arise from using tap water in the artificial kidney. There is no relationship between the daily consumption of fluoridated water and the use of such water in artificial kidneys for the treatment of patients with total kidney failure.

"The National Institute of Arthritis and Metabolic Disease (NIAMD), National Institutes of Health of the Public Health Service, is responsible for research related to the use of artificial kidneys. The NIAMD estimates that 1,800 persons in the United States depend upon hemodialysis by artificial kidney equipment for the preservation of life. . . . The dialysis techniques that have been developed permit patients to continue such treatments for years.

". . . In many parts of the country it has long been necessary to purify the local tap water before using it in artificial kidneys in order to remove iron, calcium, magnesium and other natural or added solutes before its use in dialysis. Such purification may be accomplished by distillation or by passing the tap water through a special device not unlike a water softener, which 'deionizes' it. In the United States the overwhelming majority of dialysis treatments are given in special hospital centers, and most of these are using such specially purified water for their artificial kidneys.

"The desirable fluoride content of water to be used in dialysis has not been finally determined. Some clinicians have suggested that a small quantity of fluoride may counteract to a degree undesirable bone demineralization that occurs in patients with kidney failure. There are also some indications that the absorption of fluoride during dialysis from the approximately 900 quarts of water used each week, *an amount of water 50 to 100 times the amount of fluid consumed by the average person,* can result in increased storage of fluoride in the skeleton. Because various solutes may be absorbed from the water as it is normally supplied during long-term dialysis, most water used in dialysis should be deionized.

"It should be pointed out again that the need to process some water supplies before its therapeutic use in large quantities in artificial kidneys has no bearing on the ingestion by *anyone* of optimally fluoridated water from community water supplies, recommended by health authorities as a medically safe procedure for the reduction of dental caries.

"The USPHS endorses water fluoridation as a safe and effective public health measure, and urges all communities to make its benefits available to people at the earliest possible time."

Toxicities of Common Household Items

There are innumerable common household items that children may ingest. The following list compiled by the National Clearinghouse for Poison Control Centers contains products that are less frequently discussed because their toxicities are assumed to be common knowledge or are considered unimportant in a toxicologic review. The common inert "foreign bodies" such as coins and fishing weights have been omitted.

Aerosol Sprays. Freon is the commonest propellent. In ordinary exposure sprays are harmless, but in deliberate, concentrated inhalations they have caused rapid death, possibly due to sensitization of the myocardium.

After-Shave Lotions. These contain alcohol, water and perfume. Observe for alcohol intoxication. In a few cases ethyl alcohol has been reported to cause hypoglycemia in children.

Airplane Glues or Cements. These adhesive products are resins with a solvent to keep them fluid. The solvent is composed largely of toluene and is not harmful unless deliberately inhaled in high concentrations, as in "glue-sniffing."

Alcoholic Drinks. The ethyl alcohol present may cause the common signs of intoxication. In a few cases it has been reported to cause hypoglycemia in children.

Ball-Pen Inks. In the amounts available in ball-pen cartridges, the ink is not a hazard.

Bath-Tub Floating Toys. Water, water-glycerin combinations, and sometimes mineral oil are found inside these toys. Occasionally an oil with a strong kerosene odor has been reported. The latter should be suspected of producing chemical pneumonia.

Batteries (Dry Cell). Flashlight and pen-type batteries are not swallowed, but may be bitten into by children. Even for a child a conventional flashlight battery (size D) contains only one-fifth of a minimum lethal dose (MLD) of mercuric chloride. Other ingredients are not expected to cause harm in the amounts present.

Bleach. When mixed with bowl cleaners or ammonia, bleach forms chlorine or chloramine gas. Both are irritating if inhaled, but the latter has more transient symptoms.

Body Conditioners. (See "After-Shave Lotions")

Bubble-Bath Soaps. These are composed of detergents. If a child drinks the bath water, the most toxic effect expected is vomiting.

Candles. Neither beeswax nor paraffin—with or without scent or color—are likely to cause symptoms.

Caps for Toy Pistols. The toxic ingredient is potassium chlorate, and it is present in an amount approximating 4 mg. per cap. The estimated MLD for a child is 4-5 Gm. of potassium chlorate. At that rate, a whole roll of caps would be non-toxic.

Cigarettes and Cigars. One cigarette or cigar contains a large amount of nicotine. However the absorption of nicotine from tobacco apparently is delayed. The initially-absorbed fraction causes vomiting, which in turn expels much of the tobacco from the stomach. Since nicotine is a liquid volatile alkaloid, it is unlikely to be present to a significant extent in cigarette ash.

Colognes. (See "After-Shave Lotions")

Crayons. Those bearing the C.P. or A.P. designations are nontoxic. *Do not confuse children's crayons with industrial crayons.*

Dehumidifying Packets. Medicine bottles frequently contain small packets of moisture-absorbent materials, most often dried silica gel or charcoal. They are nontoxic.

Deodorizer Cakes. Blocks are usually p-dichlorobenzine, and less commonly naphthalene. The latter is more toxic to individuals with a glucose-6-phosphate dehydrogenase deficiency. Both these products should be removed from the stomach if the child has eaten as much as a teaspoonful.

Fishbowl Additives. These products contain chemicals used to control the amount of chlorine or to kill fungus. Since small fish tolerate these chemicals, children probably will not be harmed by them. At most, these products might cause gastrointestinal symptoms.

Golf Balls. The child who peels a ball down to its fluid core might experience an explosion of its liquid contents. The most serious effect reported has consisted of mechanical injury to the eyes.

House Plants. There is very little information on the toxicity of most house plants. When no information can be found, we can assume that they are nontoxic in small amounts.

Kerosene. The petroleum hydrocarbons can produce chemical pneumonia if aspirated into the lungs. This is very likely because of the low viscosity of the fluid.

Lighter Fluid. (See "Kerosene")

Marking, Indelible and Special-Purpose Inks. These must be suspect because of the possibility that they contain analine dyes or toxic solvents.

Matches. Fewer than 20 wooden matches or two books of paper matches do not contain enough potassium chlorate to be harmful to a child.

Paint—Toy, Crib, Windowsill and Wall. These are nontoxic if just a few flakes are ingested. However repeated ingestions of outdoor paint chips may lead to serious lead poisoning.

Pencils. "Lead" and coloring pencils can be considered nontoxic. Even if they contain toxic pigments, coloring pencils ordinarily are not ingested in toxic amounts.

Play-Doh. This consists of edible, digestable ingredients.

Polaroid Pictures. The pod that breaks to develop the picture contains a small amount (1.0 cc.) of highly alkaline material (pH 13-14). The fluid used to coat the photograph is not harmful.

Porus-Tip Ink-Marking Devices (Felt-Tip Markers). The federal Hazardous Substances Act exempts these devices provided that they meet certain requirements. Therefore the ingestion hazard must be low.

Putty. Unless more than two or three ounces are ingested at one time, there is no cause for alarm. If larger amounts are ingested, there probably should be more concern for mechanical obstruction than for chemical toxicity.

Roach Tablets. These may contain a number of chemicals including arsenic and boric acid. However in most cases the child eats only one or two and has no significant symptoms. All insecticides are labelled as to ingredients.

Sachets. These usually contain an inert or edible powder that contains adsorbed essential oils. Probably there is more danger from a massive inhalation of the powder than from ingestion. Those containing crushed petals have not been reported to cause problems.

Shaving Creams. Aerosol shaving creams usually contain a soap. Most have a perfume, and some have menthol and antiseptics in small amounts. The most serious symptom resulting from ingestion would be vomiting.

The new "thermal" shave creams contain 8 to 10 per cent sodium or potassium sulfite in the soap base, with a 9 per cent hydrogen peroxide solution in a separate compartment. These are mixed as dispensed from the container, producing a controlled exothermic reaction. The resultant soap base contains about 10 per cent of the sulfate salt and a small remainder of unreacted sulfite, but it has little toxicity.

Silly Putty. It consists of silicones and 1 per cent boric acid. No problems are anticipated, although there are warnings of possible obstruction if large amounts are ingested.

Smoke Pellets for Train Sets. These are usually supplied as capsules containing mineral oil or deodorized kerosene. If the kerosene-containing pellet is chewed before it is swallowed, there is danger of aspiration and chemical pneumonia.

Soaps. Ordinary bar soaps may cause vomiting if ingested, but no other toxic effects are expected. Bar soaps which contain antibacterial substances like hexachlorophene do not present additional hazards, because of the small amounts present and the small quantities which usually are ingested.

Teething Rings. These usually contain water (sterility questionable), or a glycerine-water combination.

Thermometers. Broken glass may cut the child's mouth, but the amount of mercury present is not dangerous.

Toilet Water. (See "After-Shave Lotions")

Tooth Paste. These are considered nontoxic, but those containing stannous fluoride have caused vomiting.

Vitamins. Liquid and chewable vitamins are not harmful in the usual size bottles. However if they contain iron, gastrointestinal symptoms might be expected.

Annual Meeting of the Iowa Thoracic Society

A half-day medical program will precede the Annual Meeting of the Iowa Thoracic Society, on Wednesday afternoon, May 7, at Hotel Savery, Des Moines.

Beginning at 1:00, the presentations will include: "The Current Status of Radiation Therapy in the Management of Lung Cancer," by Curtis A. Hass, M.D., associate professor of radiology at the U. of I.; "Problems in Tuberculosis Prevention," by Thomas L. Petty, M.D., associate professor of medicine at the University of Colorado; "Problems Associated With the Rehabilitation of the

Emphysematous Patient," by Irving Kass, M.D., associate professor of internal medicine and head of the Regional Chest Clinic at the University of Nebraska College of Medicine; and "Histoplasmosis in Iowa—Practical Implications," by Michael L. Furcolow, M.D., of the Department of Community Medicine at the University of Kentucky.

William B. Galbraith, M.D., of Cedar Rapids, president of the Iowa Thoracic Society, invites all Iowa physicians to attend, and emphasizes that their spouses are welcome. Following the scientific program, there will be a hospitality hour at 5:30 and a dinner at 6:30. The Society's business meeting and election of officers will be held following dinner.

AMA Guidelines for Sex Education

Much of the current controversy in sex education could be eliminated if practical guidelines are followed, according to the American Medical Association. In making this observation, AMA has reiterated its long-time stand in support of sex education for children and youth.

A basic concept advocated by the AMA is that in the schools, sex education should not be a separate course, project, or program. Rather, it should be an integral, important aspect of the overall health education program. Basic responsibility for sex education belongs to the home, the AMA emphasizes in its guiding principles. But the church, the school, and some other community agencies have supplementary roles.

Those planning sex education in the schools should involve as many representative segments of the community as possible in planning and carrying out the effort, the AMA says, adding: "Persons involved in supporting efforts of the home through sex education in churches, schools, and other appropriate agencies must be exemplary individuals who are carefully selected and properly prepared. . . ." Materials used in such instruction, the AMA further notes, must be carefully selected for the institution and child, general and educational suitability, physiological and psychological accuracy and appropriateness, and community acceptance in terms of local conditions, customs, and traditions.

Physicians are increasingly aware of the need for counseling in sex education and can contribute significantly to the education of patients in this area. More than a million copies of the AMA's booklets on sex education have been distributed to date—at cost. The subject is discussed in AMA publications and at its conferences. (Human sexuality is a scheduled discussion topic for the AMA's 118th Annual Convention in New York, July 13-17.)

Further, the AMA has urged more training in medical schools and postgraduate education programs to prepare physicians for the sex education and counseling which are asked of them. And it encourages state and local medical societies to assist in communities' planning of family life and sex education as an integral part of health education.

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Monthly Report for Month of March, 1969

Diseases	Mar. 1969	1969 To Date	1968 To Date	Most March Cases Reported From These Counties
Chickenpox	452	1878	2924	Black Hawk, Des Moines, Linn, Page, Polk
German Measles	329	844	603	Black Hawk, Hamilton, Kossuth, Polk, Pottawattamie
Gonorrhea	287	847	885	Urban counties
Histoplasmosis	1	5	8	Polk
Impetigo	45	121	150	Black Hawk, Polk
Infectious hepatitis	24	103	168	Jefferson, Pottawattamie
Infectious mononucleosis	70	194	130	Johnson
Measles	83	138	40	Polk
Meningococcal meningitis	4	9	4	Buena Vista, Dickinson, Harrison, Linn
Meningitis, other	5	11	9	Bremer, Dickinson, Marshall, Polk
Meningo-encephalitis	1	1	0	Johnson
Mumps	823	2501	6437	Black Hawk, Clay, Floyd, Johnson, Linn, O'Brien, Winneshiek
Rabies in animals	6	26	37	Black Hawk, Cedar, Chickasaw, Clayton, Des Moines, Johnson
Rheumatic fever	2	18	11	Carroll, Marshall
Salmonellosis	11	36	15	Scattered
Shigellosis	3	5	18	Johnson, Polk
Streptococcal infect.	473	1587	2154	Jackson, Jefferson, Johnson, Scott
Syphilis	75	180	181	Urban counties
Tuberculosis	12	37	27	Scattered
Whooping cough	2	4	36	O'Brien, Scott



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There is a *sort* of tension . . . disconcertion, really, but it occurs only at departure time. It is the disturbing thought that Marco Island, after all, has values discovered daily by more seekers of special places. Limited in boundary by Gulf and River, it can yield only so many homesites, apartments, and homes.

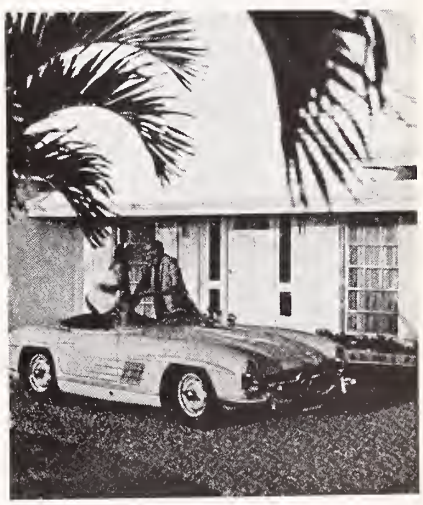
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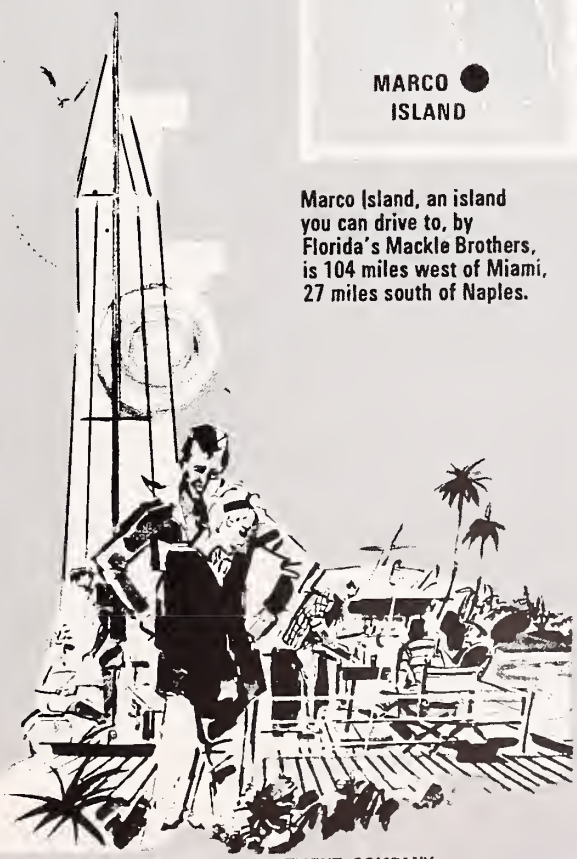






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Woman's Auxiliary News

New President of Iowa Auxiliary

Mrs. Daniel W. (Jeanne) Coughlan is a native Iowan long interested in health affairs. She has been an active worker in Medical Auxiliary activities since 1948. After active service on various committees of the Woman's Auxiliary to the Polk County Medical Society, Mrs. Coughlan served as president of that body during the 1964-65 Auxiliary year. She was very active as chairman of the Auxiliary's committee opposing the early governmental encroachments on the private practice of medicine. One of the high points of Mrs. Coughlan's county Auxiliary career was her securing the current Governor of California as a program speaker.

Many community activities have also occupied a great deal of Mrs. Coughlan's time.

Dr. and Mrs. Coughlan have three children: Connie, 19, a student at Lake Forest College; Jim, 15, a sophomore in high school; and John, 12, a sixth-grader. Although the Coughlans are loyal Iowans, their favorite home away from home is their lake cottage in Minnesota.

Jeanne is particularly interested in art, antiques, golf, books, decorating her new home and, above all, her family.



Mrs. Daniel W. Coughlan

From the President's Desk

The 1969 Annual Meeting was an inspiration to me as your new president. Seeing and visiting with members from over the state strengthened my conviction that our organization is made up of persons with forward looking attitudes and worthwhile sets of values. In these changing and troublesome times the stability of character exemplified by our members gives comfort for the future.

As we enter upon a new year of Auxiliary endeavor I have already felt the enthusiastic support of the board members, the committee chairmen, and the members in general. It has been most encouraging as I face the challenges and opportunities of a new year.

If we are to have an outstandingly successful program during the 1969-1970 Auxiliary year, it is essential that each member contribute her full share of effort in making all of our programs and projects successful. Personal differences or personalities should not be allowed to interfere with the success of our endeavors.

The final line in John Milton's best known sonnet: "They also serve who only stand and wait" could be applied to the loyal members who pay their dues but for various reasons such as place of residence, physical disability, etc. are unable to take an active part in organizational affairs. The wife of every doctor of medicine in the state should belong to the Auxiliary. One wonders how and why certain county medical societies presume to deny the wives of their members the pleasure of belonging to our organization.

Members of the National Auxiliary—in other words you and I—have been a potent force in supporting the American Medical Association Education and Research Foundation. The national organization is able to function on a large scale only because of the support of state and local groups, and of the members-at-large.

During my presidency I especially wish to extend an invitation to doctors' wives in unorganized

counties to become members-at-large. Medicine needs spokesmen in all areas of the state.

Several Iowa counties have very active community service programs such as Health Careers, Homemaker Service, "Meals-a-la-car," programs Handicapped Handcraft Sales, Mental Health programs, International Health, Vision Screening, "Gems" (Safe Baby Sitter Training) programs, Safety and Disaster Preparedness programs, and many others. I should like to see a marked expansion in this type of community work.

One of the high points of the year will be the National Auxiliary Convention during the American Medical Association's annual meeting in New York July 13 to July 17. Hope to see some of you there.

—JEANNE COUGHLAN
(MRS. DANIEL W.)

Car-Mandments

1. I shall not violate safety speed laws.
2. I shall not drive after drinking.
3. I shall not pass on curves, hills, or any place where the view is obstructed.
4. I shall not drive if drowsy or fatigued.
5. I shall dim my lights when other cars approach at night.
6. I shall observe and obey highway signs, for they are the signs of life.
7. I shall slow down while passing schools, playgrounds, hospitals, and other danger zones.
8. I shall be cautious at all intersections.
9. I shall slow down at sundown and whenever road conditions are unsafe.
10. I shall be courteous and respect the rights of every driver and pedestrian.

Careers-Recruiting Is an Auxiliary Obligation

Health manpower recruiting has come of age.

This is the opinion of Mrs. Andres Zito, Health Careers chairman, in commenting on the AMA's invitation for the medical Auxiliary to participate in planning recruiting.

"Three choices of action have been outlined for the Auxiliary by Dr. Dwight L. Wilbur, AMA president.

1. Being leaders in the provision of health care, as in medical education;

2. Sharing leadership with others, as in specific research and advances;

3. Remaining aloof and abandoning leadership to others, as in failing to resist government control."

It is interesting that doctor's wives could make the evident choice of most benefit to the medical profession.

She also pointed out the growing need for workers in the health field, and that if needs are to be met, ten per cent of high school seniors must prepare themselves for health careers. Auxiliaries have great responsibilities in recruiting.

FROM OHIO MEDICAL AUXILIARY NEWS,
January, 1969

Are Your Young People "Going to Pot?"

"Make marijuana legal! Make marijuana legal!" is the rallying cry of a segment of today's youth—and to them it appears less harmful than alcohol. In some cases where they see their parents relying on tranquilizers and barbiturates to get to sleep after a harrowing day, or taking an amphetamine capsule the first thing in the morning for weight-loss or just to get started, the distinction between use and abuse of drugs has become lost in the fuzzy limbo of "everybody does it."

There is no doubt that millions of Americans are abusing drugs—and there is no doubt that many of the young persons who are undergoing treatment for drug addiction in the U. S. Public Health Service Hospitals got started with "pot." "Because of the severity of the problem and the confusion



At its January 27 meeting, the Marion County Auxiliary donated $500.00 to the Griffin Happy Orchard School for Retarded Children. Mrs. A. D. Patterson is pictured presenting the check to Mr. Robert Fauber, president of the board, who accepted the check on behalf of the school.

which exists concerning it, an intensive public education program is urgently needed," reports Mrs. Herbert J. Ulrich, community health chairman of the National Auxiliary.

The National Auxiliary's newest health-education presentation for county Auxiliary use, the "Drug Abuse Package Program," contains complete information and materials for stimulating community understanding of the dangerous effects of a wide variety of drugs, from aspirin to heroin.

Ann Landers to Speak at National Auxiliary Convention

Ann Landers, author of the world's most widely syndicated newspaper advice column, will be one of the featured speakers at the 46th annual convention of the Woman's Auxiliary to the American Medical Association, July 13-17 at the Waldorf-Astoria Hotel, New York City.

Miss Landers, a member of the AMA's Advisory Committee on Health Care of the American People, will be the guest speaker at the Tuesday, July 15, luncheon honoring national Auxiliary past-presidents and board of directors. Her topic will be: "Is There a Doctor in the House?"

The Auxiliary registration and hospitality room will officially open at 11:00 a.m. on Sunday, July 13, and will close on Wednesday at 1:00 p.m.

On Sunday evening, the Auxiliary will sponsor a reception honoring the president, Mrs. C. C. Long, of Ozark, Arkansas, and president-elect, Mrs. John M. Chenault, of Decatur, Alabama, from 5:00 to 7:00 p.m. at the Waldorf.

Dwight L. Wilbur, M.D., the AMA president, will be the guest speaker at the Monday, July 14, luncheon honoring the members of the AMA Board of Trustees and their wives. At that time Mrs. Long will present the Auxiliary's contribution to the American Medical Association Education and Research Foundation. Last year's gift totaled $389,824.

"Drinking and Driving" will be discussed by James Ray Adams, Ph.D., associate director for safety research, Continental Research Institute, at the Tuesday, July 15, session. Following that program, state editors will be invited to meet with members of the Communications Committee to discuss ideas and suggestions concerning state publications.

A new convention feature will be a "Show and Tell," scheduled for Tuesday. In the morning state and county Auxiliaries will be invited to set up exhibits demonstrating their outstanding activities or projects. Films or slides developed or sponsored by Auxiliaries will be shown after the luncheon.

As in previous years, the Auxiliary will sponsor a program of daily activities for the pre-teens and teenagers of Auxiliary members and guests. Details will appear in the May issue of MD'S WIFE.

Local arrangements for the convention are under the direction of Mrs. Eugene F. Wolff, Newburgh, N. Y., and Mrs. Walter T. Heldmann, Staten Island, N. Y.

Around the Hawkeye State

Boone County

The Boone County Medical Society Auxiliary met at the home of Mrs. Ralph L. Wicks, on Wednesday, March 26. A dessert course was served, and an afternoon of work on a service project followed. The members made hospital gowns to be sent to various hospitals, knitted bandages for leper colonies, and rolled bandages to be sent where they were most needed.

On March 30, Mrs. Ralph L. Wicks and Mrs. John Wall represented the County Auxiliary in honoring the members of the Boone County Medical Society with red carnations, and the widows of Boone County doctors with white carnations in observance of an important anniversary in medical history, the first operation performed while a patient was under ether anesthesia. Dr. Crawford Long, a native of Madison County, Georgia, was graduated from University of Pennsylvania, Medical School in 1839, and performed his historic operation in Athens, Georgia, on March 30, 1842.

Buchanan County

The second annual Spring Medical Ball was held at the Gayla Ballroom in Independence on April 19. It was sponsored by the Woman's Auxiliary to the Buchanan County Medical Society.

The dinner dance featured a circus theme, and the husbands of Auxiliary members had been recruited to help make decorations. One of the features was an animal carosel.

Proceeds will go to the new children's unit at the Independence Mental Health Institute and to the new recreation unit to be constructed during the summer at the Buchanan County Home in Independence.

A turkey smorgasbord dinner was served during the evening at the Gayla, and there was dancing to music furnished by the Wayne Marth Orchestra, of Waterloo.

Mrs. John Mochal was chairman of the event, and Mrs. Phillip Tenney was co-chairman. Other chairmen were: Mrs. L. John Flage, publicity; Mrs. Charles White, food; Mrs. Richard Moore, tickets; and Mrs. Richard Myers, decorations.

The doctors in the Buchanan Medical Society were honored guests of the Auxiliary at a banquet at Hotel Pinicon, March 30, in observance of "Doctor's Day."

Mrs. John Mochal, president of the County Auxiliary presided. Mrs. Chester McClure was program chairman. The program for the evening featured some of the doctors' sons or daughters

and local high school students. Earlier in the day the Auxiliary had sent a red carnation to each doctor, and white carnations to Auxiliary members who are widows.

Dallas-Guthrie County

The Dallas-Guthrie County Medical Society and the Auxiliary enjoyed a dinner March 20, at Alice's Spaghetti Land, near Dallas Center. Following the dinner the guest speaker, Dr. Elmer M. Smith of Des Moines, told of his experiences in the medical field while serving in Viet Nam.

North Lee County

The North Lee County Auxiliary members were hostesses at a coffee at Sacred Heart Hospital on Doctor's Day. Each doctor was presented a red carnation on his arrival at the hospital. Two Auxiliary members poured coffee and served rolls. Mrs. Myles H. Archibald and Mrs. Robert L. Kent were in charge of arrangements.

A ten o'clock coffee at the home of Mrs. E. J. De Lashmutt opened the April meeting of the medical Auxiliary.

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Note Paper

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Yes and No

There are times to say "Yes"
And times to say "No."
Both little words
Can help character grow:

The time to say "Yes"
Is when we are asked
To do something useful
Or some helpful task;

It is when we are asked
To do what is needed
Which brings us just pride
When we have succeeded.

It is time to say "Yes"
When we're asked to do
A community project
And we see it through.

In all things that are good
It is time to say "Yes,"
For cooperation
Helps us all to progress.

It is time to say "No,"
When we are in doubt
For we might get in trouble
That we can't pull out.

It is time to say "No,"
When upon us things pile,
We do justice to none
And somehow lose our smile.

It is time to say "No,"
When they call us a "Square"
That's a club o'er our heads
By those who don't care.

If we are depressed
When we feel a bit low
And temptation is great,
Then it's time to say "No."

When to say "Yes" or "No,"
There is something inside us,
If we listen real close,
To prompt us and guide us.

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Personals



Dr. and Mrs. Clark R. Rominger, of Waukon, departed on March 23 with a medical group on a tour of Ethiopia, Kenya, Tanzania and Uganda. They were to visit hospitals and a bush clinic. They planned to be gone for about a month.

Dr. Lee W. Van Voorhis, an assistant professor of obstetrics and gynecology at the U. of I. College of Medicine, served as Iowa City chairman for the educational and fund-raising drive of the American Cancer Society last month.

The guest speaker at the Denison PTA, on March 20, was **Dr. Addison W. Brown,** a Des Moines obstetrician and gynecologist, and a former president of the American Cancer Society, Iowa Division, Inc. He showed a moving picture dealing with cancer. Dr. Brown made similar presentations in Chariton on March 27, and in Muscatine on March 30.

Dr. Jack D. Fickel, a Red Oak physician, was elected president of the new Association for Iowa Development, at a meeting held at Holiday Inn South, Des Moines, on March 6. It is a statewide organization of development groups, and its immediate objectives, Dr. Fickel said, will be to achieve tax reform and changes in the operation of the Iowa Development Commission designed to attract more industry to the state.

Dr. Rodmond Smith, of Red Oak, has been reappointed Montgomery County advisor for the Iowa Children's and Family Services, formerly known as the Iowa Children's Home Society. Appointments are made for three years.

At the meeting of the American Academy of Facial Plastic and Reconstructive Surgery held in New Orleans in mid-March, **Dr. Leslie Bernstein,** an associate professor of otolaryngology and maxillofacial surgery at the U. of I. College of Medicine, served as moderator for a panel discussion on "Mid-Facial Fractures: A Variety of Predictable Designs."

An open house was held for **Dr. Owen Frank** at the Maquoketa Hospital on March 23 in recognition of his completing 50 years of medical practice. Among the guests were four of his medical school classmates: **Dr. Robert Crawford,** of Burlington; **Dr. Warren Foster,** of Clinton; **Dr. N. E. Weems,** of Paullina; and **Dr. J. E. Rock,** of Bettendorf.

The principal speaker at the annual meeting of the Des Moines County Tuberculosis and Health Association, at Grace United Methodist Church in Burlington on April 9, was **Dr. Paul M. Seebohm,** a professor of internal medicine and head of the allergy clinic at University Hospitals, Iowa City.

Dr. Ray Robinson, of State Center, spoke on "Teen-Age Drinking" at a luncheon meeting of the Clemons Progress Club at Das Kuchen Haus, there, on March 6.

Dr. Karl A. Catlin, medical director of the Southwest Iowa Mental Health Center, and his staff provided the program at a training session on the emotionally disturbed, held at Atlantic on March 18 for the law-enforcement personnel of Adair, Adams, Audubon, Carroll, Cass, Crawford, Montgomery, Page, Pottawattamie and Shelby Counties.

On March 24 **Dr. Gene M. Kuehn,** of Mason City, spoke to the PTA at Plainfield on "Teen-agers and Their Problems."

Members of St. Stephen's Men's Club, in Newton, heard a talk by **Dr. Jesse Walker,** medical

director of the Maytag Company, on March 18. The meeting followed dinner at the Episcopal Church. Dr. Walker discussed occupational noise and the devices that are used by industry, the air lines and the Armed Forces to protect workers against it.

Dr. Robert Votteler, of Marshalltown, spoke on "Our Children's Attitudes and How They Affect the Schools" at the March 24 meeting of the PTA in Ackley.

Dr. John C. Hoak, an associate professor of internal medicine, and Dr. A. S. Norris, a professor of psychiatry at the U. of I. College of Medicine, took part in a panel discussion on marijuana at the First Presbyterian Church in Iowa City on March 20. The other participants were **Mr. Patrick J. McCarney,** the chief of police, and **Mr. Daniel P. Carew,** a professor of pharmacy at the University.

At a cancer conference for nurses sponsored by Districts 3 and 14 of the Iowa Nurses Association, in Dubuque on March 19, **Dr. Howard B. Latourette,** a professor of radiology at the U. of I. College of Medicine, spoke on "Radiation Therapy of Cancer," and **Dr. Fred J. Ansfield,** a professor of clinical oncology at the University of Wisconsin, spoke on "Cancer Chemotherapy."

Dr. Thomas D. Throckmorton, a Des Moines surgeon, gave the principal address at the capping ceremonies for freshman nurses from Iowa Methodist Hospital, at the First Methodist Church, in Des Moines, on March 14.

Spencer has a urologist. He is **Dr. George Bradley,** an alumnus of the U. of I. College of Medicine who served a residency in urology and proctology at Detroit Receiving Hospital and then practiced urology for 25 or more years in the Detroit area. He wanted to return to his home state principally, he says, because he and his family will benefit from a small-town environment. He and Mrs. Bradley have four children—a daughter attending the University of Dubuque; a son attending Baldwin-Wallace College, in Ohio; and a son and daughter 12 and 9 years of age. He is a fellow of the American College of Surgeons, a diplomate of the American Board of Colon and Rectal Surgery, and has been on the faculty of the Wayne State University Medical School.

At the Buena Vista County Hospital, in Storm Lake, on March 18, **Dr. William E. Erps** and **Dr. H. E. Hagglund,** together with a public health nurse and a dietitian, conducted a program designed to help teenage girls with overweight problems.

On May 1, **Dr. Arthur Ames, Jr.,** joined **Dr. P. W. Brecher** in practice at Storm Lake. Dr. Ames did his undergraduate college work at Brown University, in Providence, Rhode Island, he took his M.D. at the University of Pennsylvania in 1963, he interned at the Yale-New Haven Hospital, and he has completed a residency in surgery—part of it at Yale and the rest at Marquette University. In 1965, 1966 and 1967 he served at the Ellsworth Air Force Base, in South Dakota. He and Mrs. Ames have two daughters.

Mr. Nile Dusdieker, the son of **Dr. and Mrs. S. W. Dusdieker,** of Des Moines, has skipped his sophomore undergraduate year at the University of Iowa, principally by passing examinations and thus evidencing his mastery of courses without having attended the classes. His majors are premedicine and music.

The guest speaker at the March 12 meeting of the Black Hawk Association of Medical Assistants, at Hotel Russell-Lampson in Waterloo, was **Dr. George W. Heine,** of Cedar Falls. His topic was chest diseases and emphysema.

Dr. Robert L. Mandsager, of Marshalltown, was notified in mid-March that he had qualified for certification by the American Board of Surgery.

Dr. F. Douglas Lawson is the new president of the medical staff of Lutheran Hospital, Fort Dodge, succeeding **Dr. John F. Kelly. Dr. J. G. McCarroll** is the president-elect; **Dr. J. E. Reed** is the vice-president; and **Dr. W. A. Sybers** is the secretary. All of them practice in Fort Dodge.

Dr. W. I. Evans, of Grinnell, answered questions following afternoon and evening showings of the American Cancer Society film "Time and Two Women" in Grinnell on March 25. The Soroptomist and Venture Clubs served as sponsors, and all the women in the community were encouraged to attend.

Dr. Donald J. Heming, formerly of Rock Island, opened an obstetrics and gynecology practice in Davenport late in March. He took a degree in

mechanical engineering from the University of Illinois and worked for a time in the engineering department at the Quad Cities plant of the Aluminum Corporation of America. He got his M.D. degree in 1963 at the medical school of the National University of Mexico, and interned in Stamford, Connecticut. He served a residency in his specialty at St. Joseph's Hospital, Phoenix.

Dr. Richard Fincham, an associate professor of neurology at the U. of I. College of Medicine, has started clinical tests of L-dopa, a drug that is expected to be useful in treating Parkinson's disease. University Hospitals, Iowa City, has been proved for the experimental treatment of 12 patients, but the project is beginning with just two or three.

At the annual award dinner of the Linn County Association for Mental Health, at the Roosevelt Hotel in Cedar Rapids on March 20, **Dr. Herbert Nelson,** of Iowa City, director of the Iowa Mental Health Authority, spoke on "Current Trends in Community Psychiatry."

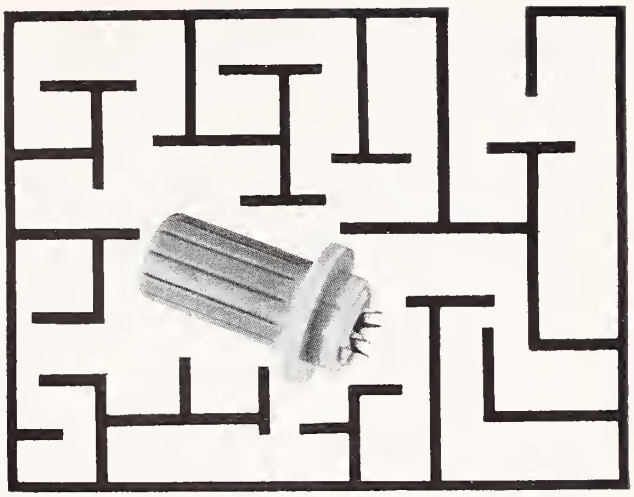
Dr. J. J. Shurts was elected president of the Eldora Rotary Club on March 25. His presidential term will begin on July 1. Since midsummer of 1968 he has been vice-president of the organization.

Dr. D. E. Taylor, of Stuart, is the new president of the medical staff at the Guthrie County Hospital. **Dr. Herbert Neff,** of Guthrie Center, is the vice-president, and **Dr. C. A. Nicoll,** of Panora, is the secretary.

"Pioneer Medical Practices" was the title of the ninth in a series of public programs conducted by the Polk County Historical Society and the Department of Adult Education of the Des Moines Public Schools, and the State Historical Building, on East Grand Avenue opposite the Capitol. The principal speaker was **Dr. Eugene McCaffrey,** who has engaged in general practice in Des Moines since 1915, and is a Life Member of the Iowa Medical Society.

Mr. Donald L. Taylor, executive vice-president of the IMS, was a guest lecturer at a medical-executives' school conducted by the AMA at its Chicago headquarters, March 24-27.

Last month **Dr. Adrian E. Flatt,** a professor of orthopedic surgery at the U. of I. College of Medi-



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cine, lectured at an international meeting on arthritis and rheumatism at the Royal Postgraduate Hospital, London. Dr. Flatt has used stainless-steel hinges to replace severly arthritic joints in more than 200 fingers of selected patients during the past 12 years.

Dr. George N. Bedell, a professor of internal medicine at the U. of I., was the principal speaker at a public meeting in Washington, Iowa, on March 26. His topic was "Research Supported by the Iowa Tuberculosis and Respitatory Disease Association." He made a similar presentation in Independence, Iowa, on the following evening, March 27.

The Buena Vista County Medical Society has joined a telephone hook-up of groups which are to discuss medical problems at least once a month with specialists at the University of Nebraska Medical Center, in Omaha. The first program in which the group at Storm Lake participated, on March 28, concerned chemotherapy for ambulatory cancer patients, and the discussion leader was **Dr. Henry Lemon,** a professor of internal medicine. Each group of physicians is supplied, in advance, with 35 mm. slides and medical histories of the cases to be considered.

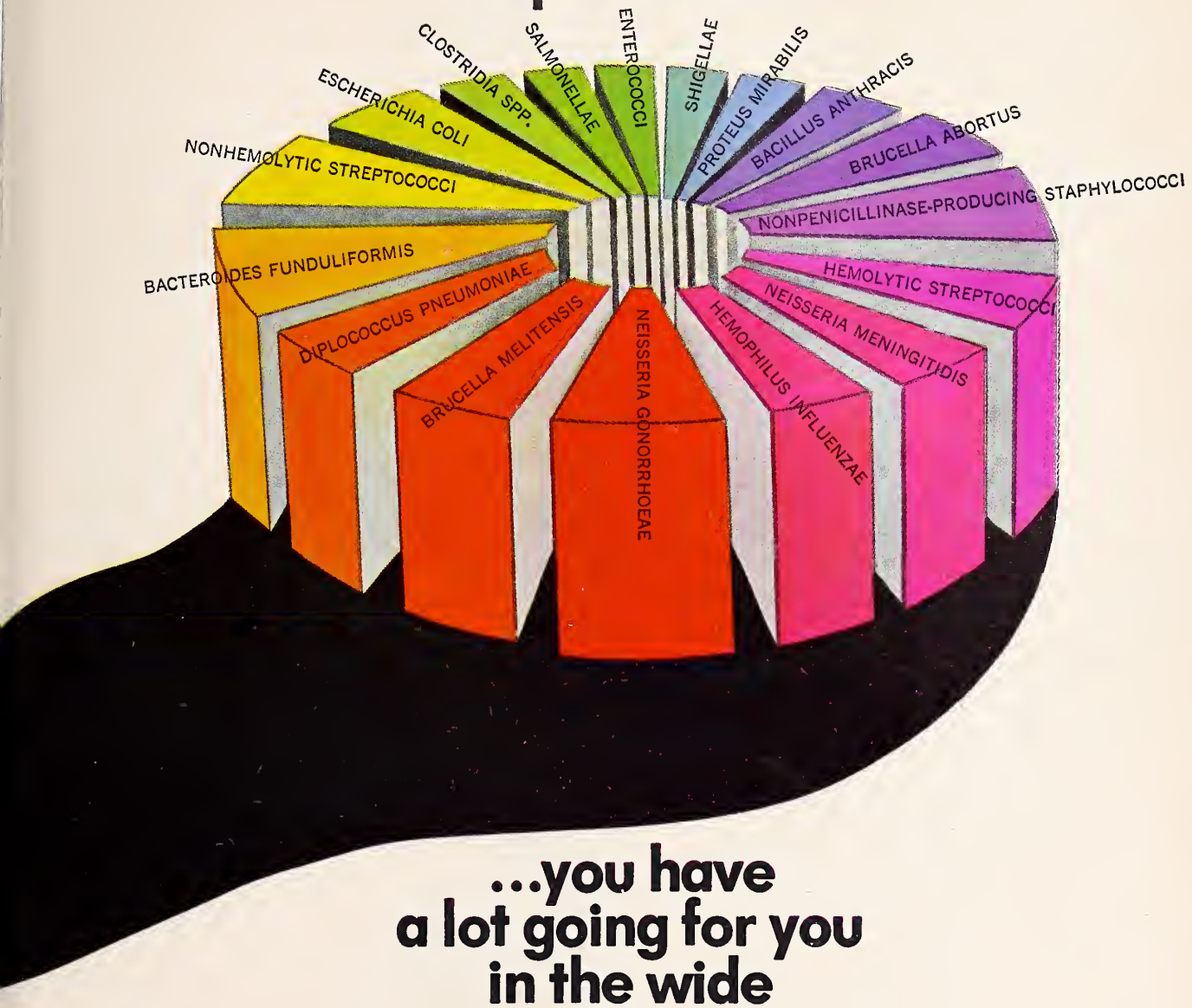
Dr. C. M. Kos, who has a private practice of otologic surgery in Iowa City, and **Dr. William D. deGravelles, Jr.,** a physiatrist who heads the Younker Rehabilitation Center, in Des Moines, will be two of the speakers at the Seventh Annual Workmen's Compensation Symposium, at Hotel Savery, Des Moines, on April 2 and 3.

On Tuesday, March 25, **Dr. L. K. Berryhill,** director of the mental health center in Fort Dodge, addressed the Wright County Medical Society members and their wives at the Eagle Grove Country Club. He outlined the unique format and function of the Fort Dodge organization, and reviewed the relationship of the general physician to psychiatry, and particularly to mental health center operation.

Dr. Robert C. Watzke, an associate professor of ophthalmology at the U. of I., was invited to lead a conference for residents and staff of the Wills Eye Hospital and Research Institute, in Philadelphia, on March 28. The topic of a lecture he presented was "Photo-Coagulation in Retinal Diseases."

James R. Fouts, Ph.D., a professor of pharmacology at the U. of I. and director of the Oakdale Toxicology Center, has been named to a 42-member Task Force for Research Planning in Environmental Health Sciences. The members represent

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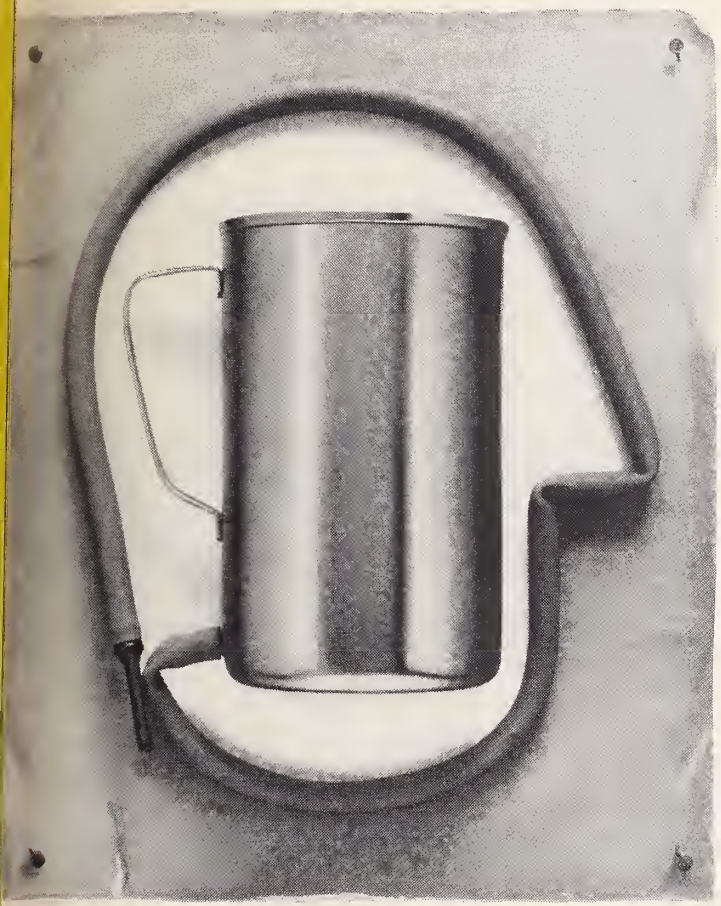
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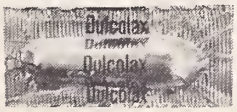
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more than 20 scientific and medical disciplines at universities, governmental agencies, private industry and private medical practice. The group will meet this summer at Oregon State University.

Dr. Ernest B. Howard, the new executive vice-president of the AMA, has made two top-level staff appointments. **Mr. Jim Reed** has been moved from the post of director of the Communications Division to that of assistant to the executive vice-president, and **Mr. Charles S. Lauer** has been moved from the post of director of the Advertising Department to that of director of the Communications Division. The latter includes THE AMA NEWS; TODAY'S HEALTH; the "Medical News" section of JAMA; radio, television and press relations; and program services, including the preparation of pamphlets as well as displays.

The April 16 meeting of the Polk County Medical Society, held at the Fort Des Moines Hotel, consisted of a panel discussion on professional corporations. The participants were attorneys **Clarence Cosson** and **Robert B. Throckmorton, Mr. Howard Baker,** of Professional Management Midwest, Waterloo; and **Dr. John H. Kelley,** of Des Moines, chairman of the IMS Committee on Legislation.

Dr. Joseph Song, a pathologist at Mercy Hospital, Des Moines, is to address the annual meeting of the Arkansas Medical Society, in Hot Springs, April 28, on "Usefulness of Endometrial Curetting in Abnormal Bleeding," and is to discuss "Equivocal Lesions of the Uterine Cervix" at a meeting of the Arkansas Tumor Clinic Association on April 29.

Des Moines is to have a peacetime-disaster drill about mid-June to test the readiness of the city to respond effectively in the event of a catastrophe involving many injured persons. The general scheme for meeting such an emergency is outlined in the Disaster Plan for Des Moines and Polk County, a booklet dated January 1, 1969. **Dr. Walter Eidbo,** a Des Moines surgeon, is chairman of the Civil Defense Committee of the Polk County Medical Society.

The subject of the Medical Forum of the Air which will be telecast on the evening of May 5 over station KDIN-TV (formerly KDPS-TV), Des Moines, will be "Stroke and Blocked Blood Vessels," and the panel will consist of **Drs. John T. Bakody, William D. de Gravelles, Paul From** and **Richard E. Paul.**

Dr. John Green, a pathologist, and **Dr. Norman Rinderknecht,** an obstetrician and gynecologist, both of whom practice in Des Moines, answered

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questions about cancer on **Mr. Paul Rhodes**' program "People's Press Conference," in early April.

On April 9, at the first of a series of public meetings sponsored by the Community Nutrition Section of the Iowa Dietetic Association, the Story County Medical Society and other organizations, and held at the Public Library in Ames, **Dr. Charles Blackburn,** an internist at the McFarland Clinic, showed and commented on a film entitled "What Is Diabetes?" At the third meeting, on April 23, Dr. Blackburn participated in a panel discussion of the topic "Living With Diabetes."

At the Eppley Auditorium on Morningside College campus in Sioux City, April 12, **Dr. J. L. Garred,** of Whiting, spoke to about 600 pilots on the psychological and psychiatric factors involved in aviation safety. **Mr. Max Conrad,** of Phoenix, the "flying grandfather" was another of the speakers.

Dr. John Joseph Dougherty has joined **Drs. W. M. Krigsten** and **Albert D. Blenderman,** in Sioux City, and their group is to be known as Sioux City Orthopaedic Associates. Dr. Dougherty did his premedical work and attended medical school at Creighton University, interned at St. Joseph Mercy Hospital, Sioux City, served his residency at the University of Wisconsin, and has practiced his specialty in Omaha since 1965.

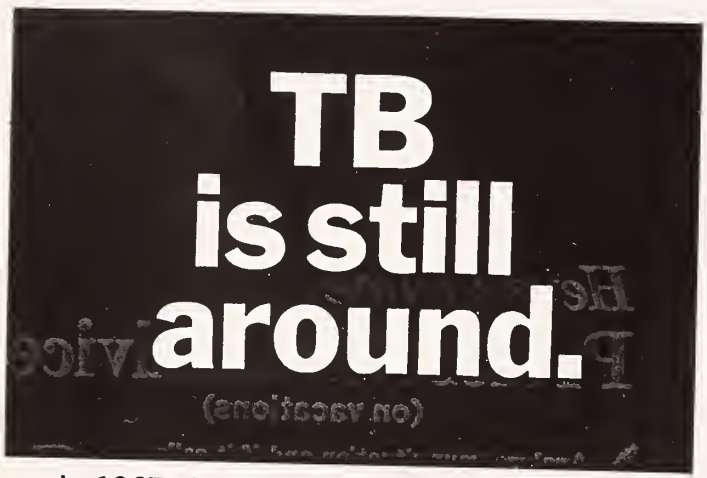
Dr. William B. Bean, head of internal medicine at the U. of I. College of Medicine, has asked to be relieved of his administrative duties as of June 30, 1970. He intends to continue his teaching and research in Iowa City. During several months of the current academic year, he has been on leave from the U. of I., serving as a visiting professor at his *alma mater,* the University of Virginia Medical School, and working on a biography of Dr. Walter Reed, of yellow-fever fame, about whom the University of Virginia has comprehensive records. Dr. Bean edited the ARCHIVES OF INTERNAL MEDICINE for several years, and is now editor of CURRENT MEDICAL DIGEST.

Deaths

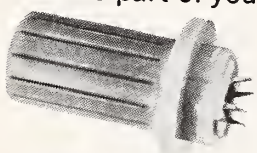
Dr. N. Boyd Anderson, 75, who practiced medicine in Des Moines from 1922 until his retirement in 1959, died at a hospital in Fayetteville, Arkansas, on March 17, following a heart attack. He served as secretary-treasurer of the Polk County Medical Society from 1935 to 1940, and as treasurer of the Iowa Medical Society from 1949 to 1959. He and Mrs. Anderson had lived in Springdale, Arkansas, since leaving Des Moines.

Dr. George H. Keeney, 89, who practiced medicine in Mallard for 57 years, died on March 23 in Los Angeles, where he had lived since retiring in 1966. Burial took place at Carlisle. He was a 1908 medical graduate of Drake University, he was a member of the General Assembly of Iowa for three terms in the late 30's and early 40's, he was a member of the first board of directors of Iowa Blue Shield, and he was named IMS Doctor of the Year in 1960. He was a Life Member of the Iowa Medical Society.

Dr. George D. Callahan, 62, of Iowa City, died at the Veterans Hospital in Knoxville, on April 1, after an extended illness. He practiced medicine in Iowa City from 1932 until his retirement in 1967, and except for a few years when he served in the Armed Forces during World War II he held the elective office of Johnson County coroner from 1936 until the Medical Examiner Law took effect in 1961. From then virtually until his retirement from practice, he was county medical examiner. He was a 1930 graduate of the U. of I. College of Medicine.



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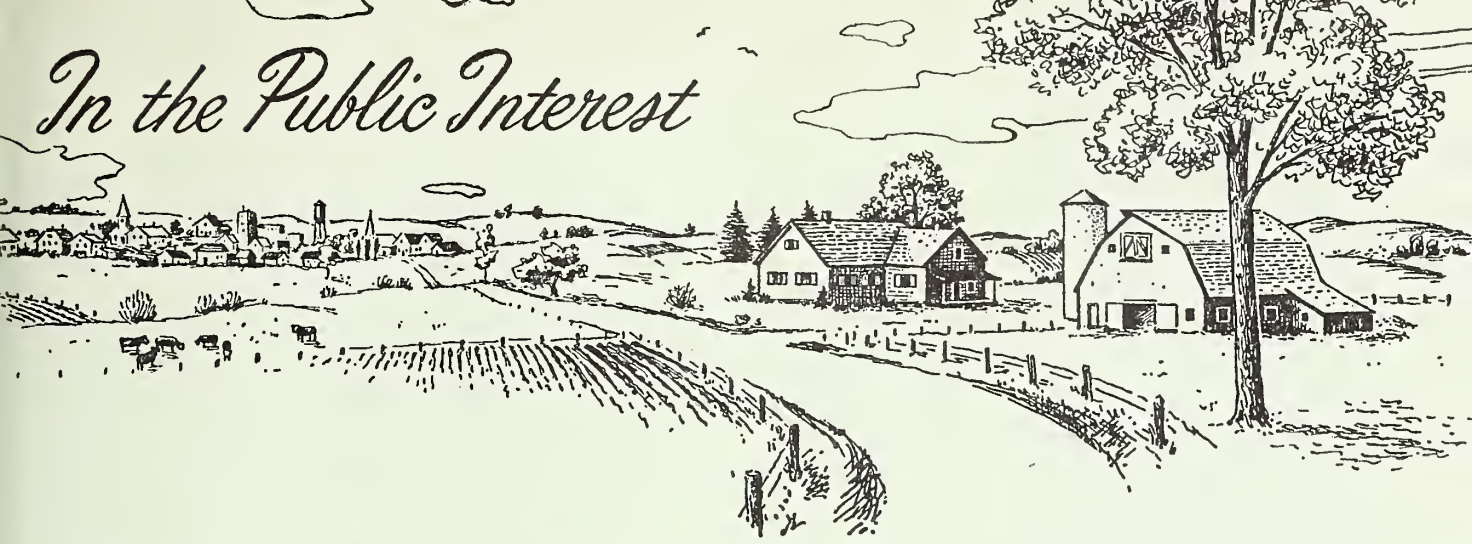
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The Sixty-Third General Assembly Made Good Progress on Health Legislation During Its 1969 Session

The Iowa General Assembly completed work for 1969 on Friday, May 23. Several IMS proposals were enacted into law, and others received favorable consideration but must await final action when the Legislature reconvenes 7½ months from now, in January, 1970. Following is a review of the actions taken on major proposals of interest to physicians.

HEALTH LEGISLATION ENACTED

Good Samaritan (HF 39). Early in the session both houses passed a Good Samaritan Bill overwhelmingly. It has been signed by the governor and will become effective on July 1, 1969. It protects individuals from suits for damages when they have rendered emergency care or assistance in good faith at the place of an emergency or accident, provided no compensation is charged.

Anatomical Gifts Act (HF 305). Toward the end of the session the Senate acted favorably upon a bill earlier passed by the House setting forth procedures to be folowed when all or part of the human body has been willed for specific purposes. The Bill also contains a provision that the administration of blood and the transfer of human tissue, in Iowa, is a medical service rather than the sale of a product. This will clearly eliminate the threat of implied warranty which has been a concern to many Iowa physicians.

Depressant Drugs (HF 516). A portion of this Bill deals with the severity of the penalty for deficiencies of depressant-drug record-keeping by physicians and others. Previously such a violation was a felony, but enforcement experience indicated that the penalties for inadequate record-keeping should be less severe. The change makes a record-keeping violation a misdemeanor rather than a felony.

Operating a Motor Vehicle While Intoxicated (HF 207). The IMS has long advocated legislation declaring that .10 per cent by weight of alcohol in the blood shall constitute evidence of intoxication in automobile drivers. This legislation, signed into law by the governor, makes .10 per cent blood alcohol presumptive evidence of O.M.V.I.

Title XIX (Medicaid). It became apparent early in the session that Title XIX funds would be insufficient to complete the current biennium. Even in view of a cutback in the program, the Legislature found it necessary to approve a deficiency appropriation of $2,000,000 for the period ending June 30, 1969. In addition, it appropriated $12,-030,000 per year for the next biennium. State officials feel that this will permit the program to continue on its present basis, but they see little possibility of expanding the program to its previous size.

There was a great deal of debate in the General Assembly regarding the reasons why Title XIX funds have proved inadequate. As a result of that debate, a resolution (HCR#29) was adopted by the Legislature calling for an interim study of Title XIX and a report to the General Assembly by March, 1970.

Venereal Disease (SF 226). Existing Iowa statutes relating to venereal-disease detection, treatment, control and reporting were updated by this legislation. A section of the new law permits the treatment of minors 16 or more years of age without their parents' consent, except when the child might communicate the disease to other members of the family.

LEGISLATIVE STUDIES

In addition to the Title XIX fund inadequacy, two other areas of interest to the medical profession will receive attention prior to the next session. First, the State Department of Health and the State Department of Social Services are to undertake a study of the care and treatment afforded the chronically ill, mentally ill, mentally retarded and handicapped in facilities licensed by

the respective Departments. Second, as a part of the appropriations bill for the operation of Board of Regents institutions, the Legislature asked for a study of the possible utilization of facilities in Polk County and other areas of the state for the training of medical students as general practitioners. The report on that topic is to be submitted not later than January 15, 1970.

HEALTH LEGISLATION CONSIDERED BUT NOT ENACTED

Therapeutic Abortion (SF 202). One of the most controversial items before the General Assembly in 1969 was the proposal to modify the existing Iowa statutes regarding abortion. The IMS and other groups supported the Bill, but it was defeated in the Senate. Because some IMS LEGISLATIVE BULLETINS were devoted to this subject, we shall not attempt to report in detail on the legislative consideration given this particular measure.

The IMS recognizes that proposals regarding therapeutic abortion are certain to be introduced in forthcoming sessions of the Iowa General Assembly. In 1969 the IMS House of Delegates has reiterated the Society's belief that the medical profession has a vital responsibility to help legislators with their future considerations of the Iowa therapeutic abortion law. The 1969 House of Delegates has also reaffirmed the policy which it established in 1968 to support legislation to modify the state's abortion statutes.

Change in the Chiropractic Practice Act (SF 91). By a one-vote margin the Senate re-referred to its Judiciary Committee the Bill which would change the Chiropractic Practice Act. The IMS played a major role in providing legislators with information on why this Bill and similar proposals are *not* in the public interest. Prior to the next session of the Sixty-third General Assembly, in anticipation of efforts by the chiropractors to modify and broaden the Chiropractic Practice Act, the IMS Committee on Legislation will formulate a program to give legislators additional information on this topic.

STATUS OF OTHER MAJOR HEALTH LEGISLATION

Professional Corporations (HF 554 and SF 652). Although this proposal did reach the Senate noncontroversial calendar, it was not considered by the full Senate. The IMS has taken the lead in coordinating the efforts of the 11 groups named in the Bill, the members of which would benefit from it. The Professional Corporation Bill would permit certain individuals to establish corporations of a special type in which only licensed practitioners of the respective profession could be stockholders. It would allow professional people to organize themselves in much the same way that businessmen form business corporations, and the resultant corporate entities would provide the same benefits. The IMS will continue its efforts to coordinate the efforts of the interested groups, and it looks forward to favorable action on the Bill by the General Assembly early in 1970.

State Crime Laboratory (SF 585). This legislation would establish a state crime laboratory under the direction of a state medical examiner within the U. of I. College of Medicine. The IMS is on record in favor of this type of legislation, and its representatives will be meeting in the interim to determine whether any changes should be recommended prior to its consideration in 1970. The Bill passed the Senate by a wide margin, and is presently in a House committee.

Title XIX Carrier (HF 610). This Bill would amend Chapter 223 of the Acts of the Sixty-second General Assembly to provide that the Department of Social Services *may* contract with outside organizations for handling Medicare claims. Although the Bill was reported out of committee, it was not considered by the full House. The Bill will be returned to committee, as will all other House bills not considered by the full House during the session just concluded.

Radiation Control (SF 269). This Act, which would establish a radiation-control program under the administration of the State Department of Health and which would establish an advisory council on radiation control, has been before the Iowa General Assembly during several sessions. It received approval by a Senate committee this spring, but since its implementation would require an appropriation, it was sent to the Appropriations Committee for further consideration.

Registration of Opticians (HF 342 and SF 288). The proposal to require the registration of dispensing opticians has been endorsed by the IMS, but the measure did not receive approval from the Senate committee to which it was referred.

Blue Cross-Blue Shield Tax (SF 265 and HF 481). This Bill, which would amend Section 432.1 to impose the 2 per cent premium tax on nonprofit hospital and medical service insurance, is still in the Ways and Means Committee of each house.

LAYING THE GROUNDWORK FOR 1970

The Committee on Legislation will be meeting within the coming weeks to make plans for the 1970 session of the Sixty-third General Assembly. Priorities will be established, and the cooperation of each county medical society, and particularly of the legislative contact men, is requested. Every IMS member should join the Society's legislative task force, and make an effort to become well acquainted with his elected representatives. As leaders of the health team, physicians have a responsibility to make their views on health proposals known to legislators, in an effort to assure knowledgeable consideration of all legislation pertaining to health.

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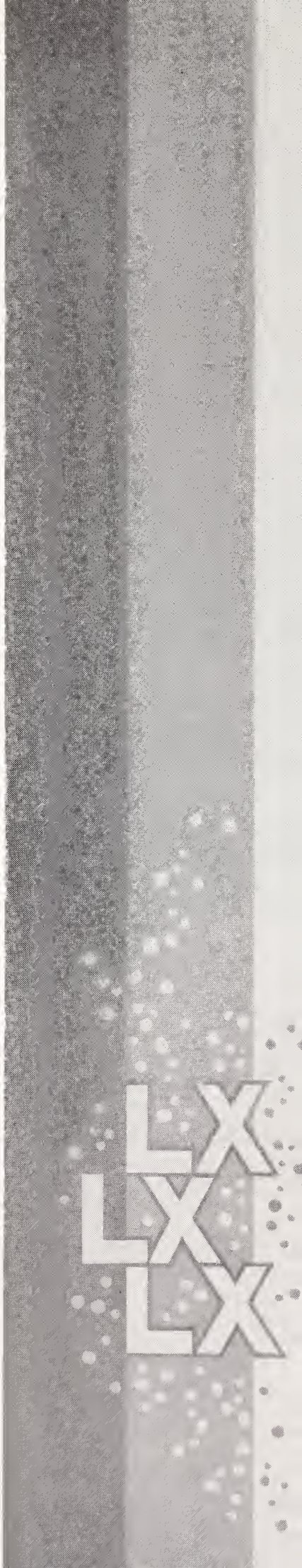
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Vol. LIX JUNE, 1969 No. 6

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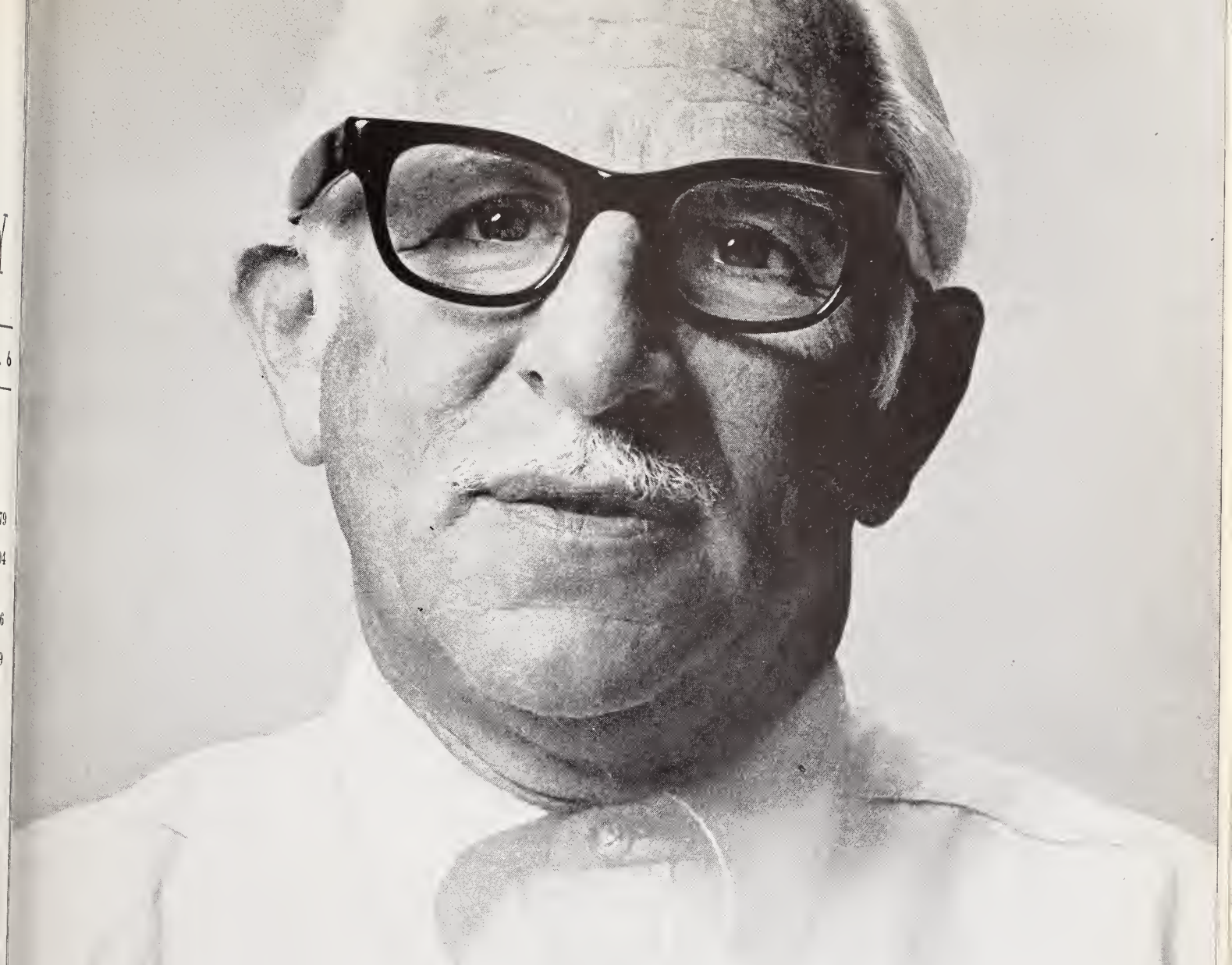
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Precautions: Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken.

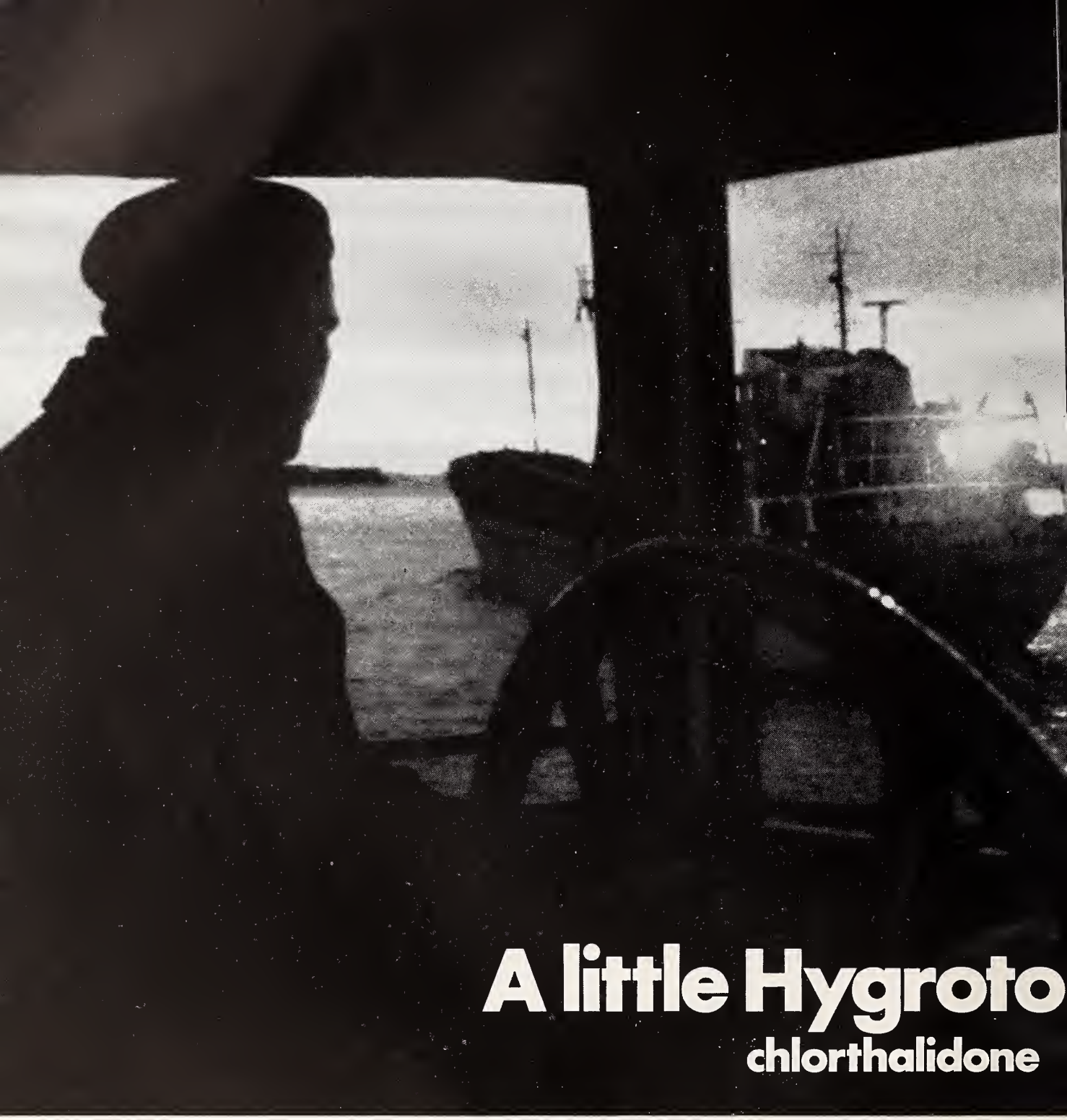
In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

Side Effects: Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes; a rare case of exfoliative dermatitis has been reported. Photosensitivity; onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose related. Transient increase in urinary output, sometimes accompanied by thirst (rare). Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth—dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy.

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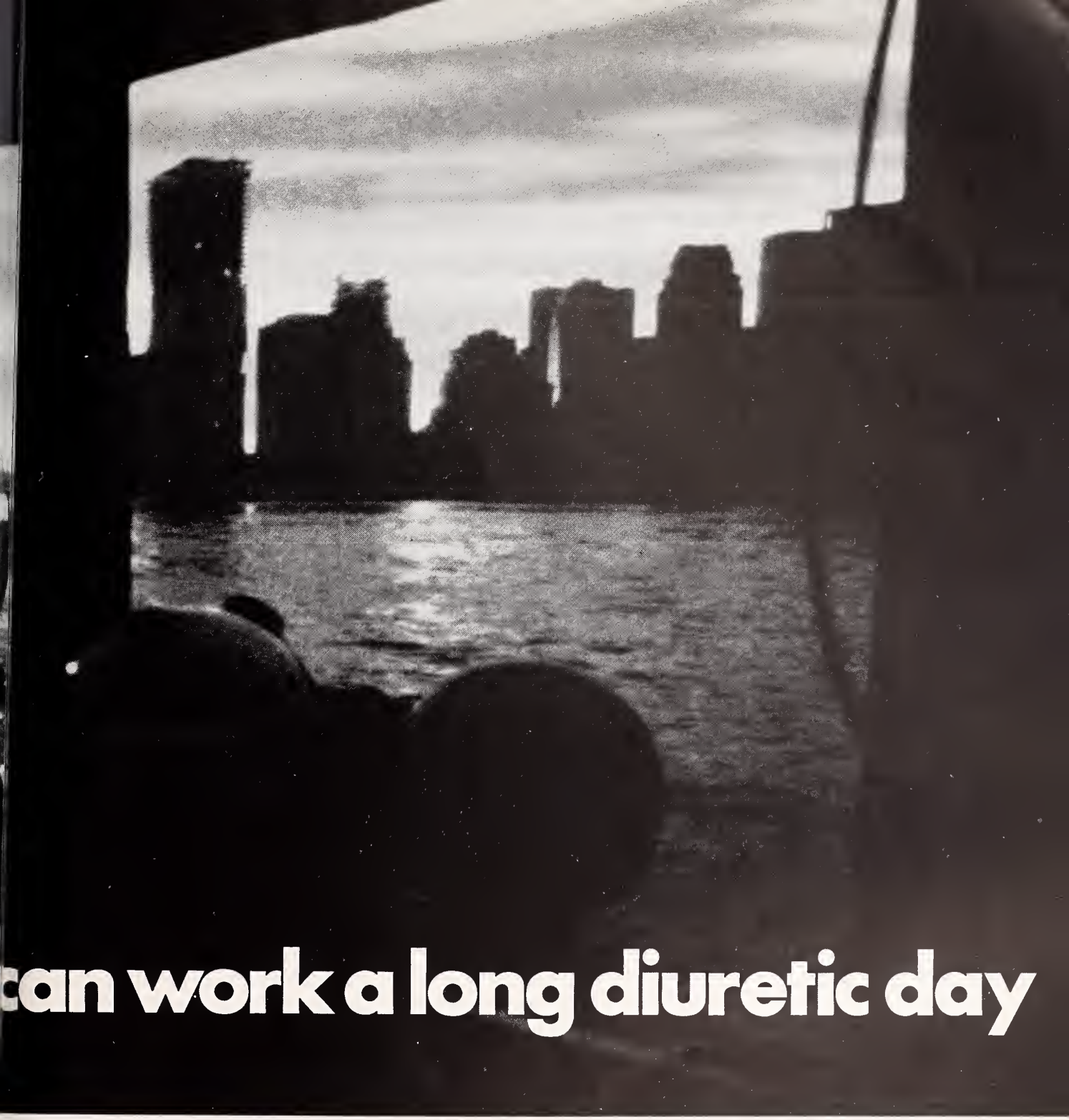
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Use with caution in pregnant women and nursing mothers since the drug may cross the placental barrier and appear in cord blood and since thiazides may appear in breast milk. The drug may result in fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult. When used in women of childbearing age, balance benefits of drug against possible hazards to fetus.

Precautions: Antihypertensive therapy with this drug should always be initiated cautiously in postsympathectomy patients and in patients receiving ganglionic blocking agents, other potent antihypertensive drugs or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. Because of the possibility of progression of renal damage, periodic determination of the BUN is indicated. Discontinue if the BUN rises or liver dysfunction is aggravated. Hepatic coma may be precipitated.

Electrolyte imbalance, sodium and/or potassium depletion may occur. If potassium depletion should occur during therapy, the drug should be discontinued and potassium supplements given, provided the patient does not have marked oliguria.

Take special care in cirrhosis or severe ischemic heart disease and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended.

Adverse Reactions: Nausea, gastric irritation, vomiting, anorexia, constipation and cramping, dizziness, weakness, restlessness, hyperglycemia, glycosuria, hyperuricemia, headache, muscle cramps, orthostatic hypotension, which may be potentiated when chlorthalidone is combined with barbiturates, narcotics or alcohol, aplastic anemia, leukopenia, thrombocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin rashes, urticaria, purpura, necrotizing angiitis, acute gout, and pancreatitis when epigastric pain or unexplained G.I. symptoms develop after prolonged administration. Other reactions reported with this class of compounds include: jaundice, xanthopsia, paresthesia, and photosensitization.

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The Month in Washington

Washington, D. C.—The Department of Health, Education and Welfare's plans to impose Blue Shield schedules for physicians under Medicaid and to limit payments to hospitals under Medicaid and Medicare drew strong responses from the American Medical Association and the American Hospital Association.

Dr. Dwight L. Wilbur, president of the AMA, urged in a letter to Robert H. Finch, HEW Secretary, that all segments of the health care field be consulted in effecting economies in government-paid health services: "The American Medical Association is eager to make available to your office the composite experience and judgment of the nation's physicians, who are the principal providers of health care to all the people," Dr. Wilbur said. "The needs and problems of patients in all walks of life, at all income levels, come to their attention, in composite, more than a billion times a year.

"It has always been a principle of both the humanity and the professional code of the physician that no one shall ever be denied quality health care because of his inability to pay. The present concern is how this universal care can best be provided within a viable economic system and in the face of the burgeoning demand for medical manpower, services, and facilities. . . .

"The knowledge and judgment of the nation's physicians—as well as of the prepayment plans, the health insurance industry, the hospitals, the allied health professions, the actuaries and others —must be enlisted in your battle against the health-care portion of the inflation problem."

Dr. Wilbur wrote Secretary Finch following the HEW announcement that federal spending on the Medicaid-Medicare programs would be trimmed by $328 million through basing Medicaid fee schedules on prevailing Blue Shield rates, limiting mental illness benefits under Medicaid, and cutting down hospital overhead allowances in Medicaid and Medicare.

"It is important to recognize that there are many variables in the circumstances of payment for medical and hospital services," Dr. Wilbur said. "Local needs and resources, the educational and motivational levels of the people, and the economic conditions of the state and the community are among the reasons for the differences exhibited by the payment patterns of the Blue Shield plans and health-insurance companies.

"These circumstances must be the foundation for any policies involving cost and payments. No universal pattern—no matter how many variations it may try to provide—can be imposed on the thousands of localities without wreaking havoc and probably increasing inefficiency and costs."

Concerning the imposition of Blue Shield rates as fee schedules under Medicaid, in an address before the American Society of International Medicine in Chicago, Dr. Wilbur warned that a later step might be that of employing physicians in groups on salary, and abandoning the fee-for-service principle. He said that physicians, in combatting such government efforts, must accept the major responsibility of keeping fees as moderate as possible.

In a letter to President Nixon, the American Hospital Association protested removal of the 2 per cent overhead allowance for hospitals. Officially representing the AHA, Mr. Ray R. Eppert, Detroit, Mich., a hospital trustee, said to President Nixon:

"The recent announcement of a reduction in Medicare reimbursement poses a serious threat to institutional integrity and, therefore, to the ability of hospitals to serve the sick and injured of this nation. Hospitals have been repeatedly assured at the highest levels of government that Medicare changes would not be made without consultation with their designated representative, the American Hospital Association.

"The AHA has tried repeatedly but unsuccessfully to meet with Secretary Finch. It is incredible that without any consultation the federal government should propose removal of the 2 per cent allowance which is a proper component of reasonable costs guaranteed under the law as passed by the Congress.

"The Department apparently deemed it unnecessary to consult with the hospital field, and, as far as can be determined, made no serious study of the effect of the proposed reduction on hospitals. Payment of nothing but raw costs will lead . . . to the serious underfinancing of our hospitals."

* * *

Drug combinations became the target of the Senate Small Business Subcommittee's investigation of the prescription drug industry. Medical school professors critical of drug combinations were called as witnesses in two days of hearings which opened this phase of the drug industry probe which began nearly two years ago. It was not indicated when—or even whether—drug-company representatives would have an opportunity to defend their combination products before the Subcommittee.

Dr. Heinz F. Eichenwald, a National Academy of Science drug specialist, told the subcommittee that "misleading advertising" had lured "the gullible physician" into prescribing useless and

sometimes dangerous drug combinations. He also said continued use of drug combinations "amounts to a strong indictment of the ability of many physicians to judge what is effective and what isn't."

Dr. Eichenwald, pediatrics chairman at the University of Texas Southwestern medical school in Dallas, and Dr. William M. M. Kirby, a medical professor at the University of Washington medical school in Seattle, testified on the opening day of hearings on combination drugs conducted by the Subcommittee headed by Senator Gaylord Nelson (D., Wis.).

The two physicians were among 30 drug experts who evaluated combination drugs for the National Academy of Science. The experts' unanimous report said the combinations were useless and sometimes dangerous.

The report caused the U. S. Food and Drug Administration to serve notice April 2 that the 78 combination drugs studied by the scientists would be banned from the market unless drug makers could prove the Academy studies were wrong. Drug companies are fighting the FDA order as to many of the combinations that would be banned.

Eichenwald and Kirby both testified doctors are widely prescribing the combinations despite numerous warnings of their potential danger.

In another action, Senator Nelson urged the FDA to restrict cyclamate-sweetened products to a prescription-only basis. In a letter to FDA, Nelson said "tens of millions of children and adults across the nation are unwittingly being exposed to potentially serious health hazards by the unnecessary consumption of cyclamate-sweetened soft drinks, cereals, desserts and 'sugar'-coated pills."

He added "increasing scientific evidence indicates that cyclamates can cause chromosome breakdown, the birth of undersized offspring in animals, interference with effectiveness of certain antibiotics, persistent diarrhea, liver diseases, skin irritation and eruption, and difficulty with blood clotting and high blood pressure."

Cyclamate was originally developed as a sugar substitute for diabetics and others forced to restrict their intake of sweets. The FDA recently proposed regulations on labelling and ingredient content for cyclamate, often used now as a general substitute for sugar.

* * *

The Joint Commission on Mental Health of Children is recommending a broad program aimed at bettering the health of the nation's children and youths at an estimated cost of $6 billion to $10 billion a year. The Commission recently disclosed its recommendations to the annual meeting of the American Psychiatric Association in advance of its report to Congress. The 54-member Commission—which has completed a three-year, $1.5 million study—was established by Congress in 1965.

Sen. Abraham A. Ribicoff (D., Conn.), who introduced the legislation to set up the Commission, said he would promptly introduce legislation to carry out the Commission's recommendations. The recommendations included national health insurance for persons up to 21 or 25 years old; family planning and birth control; prenatal care; pediatric care for children up to age of three, and physical and mental health services for older children.

Other recommendations:

—Federal funding for about 100 child-development councils to help guide families through the confusion of government agencies in order to insure diagnostic, treatment and preventive services for children.

—Appointment of a Presidential council of advisers on children and youth, similar in position and prestige to the Council of Economic Advisers.

—Establishment of state commissions and local authorities on child care.

—Federal financing of about 10 evaluation centers to consider the working of the child development councils.

—Publicly supported day care available for all children.

—Federal funds for training child health and welfare personnel.

—Tax incentives to induce people to service in slum areas.

Dr. Reginald S. Louri, a Washington, D. C., psychiatrist, is chairman of the Joint Commission.

President Nixon, in a February 19 message to Congress, said:

"So crucial is the matter of early growth that we must make a national commitment to providing all American children an opportunity for healthful and stimulating development covering the first five years of life."

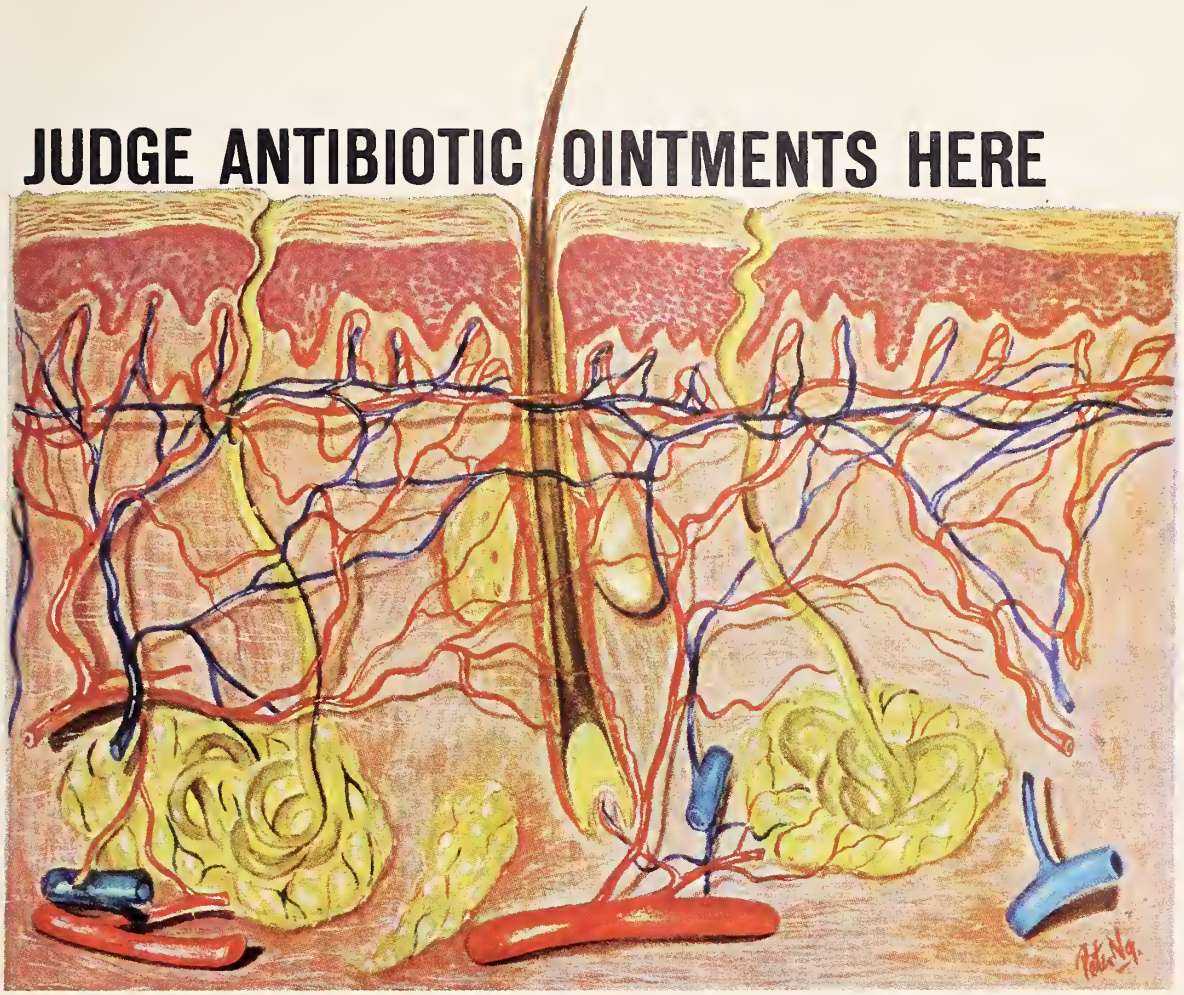
* * *

The chairman of the AMA Committee on Alcoholism and Drug Dependence estimated that 5 per cent of U. S. college students have tried LSD, and 20 per cent of high school and college-age youths have experimented with marihuana and other hallucinogenic drugs.

The chairman, Dr. Henry Brill of West Brentwood, Long Island, N. Y., made the estimate in testimony before the Senate Health Subcommittee. "And," he added, "although no accurate count has been made, there are signs that the abuse of heroin and other so-called 'hard' narcotics is spreading into the suburbs."

Dr. Brill told the Subcommittee that the nation's physicians increasingly "are being called upon to treat patients with drug problems, and to give counsel to anxious and bewildered parents who are discovering that 'it can happen' to their sons and daughters." He emphasized the need for more research in the narcotics field.

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PRECAUTIONS: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and toler-

or here.



ated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

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COMING MEETINGS

CONTINENTAL U. S.

June 2 **International Conference on Drug Abuse**, Americana Hotel, New York.

June 3-4 **International Conference on Poison Control**, Americana Hotel, New York.

June 7-10 **South Dakota State Medical Association**, Guest House, Watertown.

June 9-11 **American Neurological Association**, Beverly Hilton, Los Angeles.

June 9-13 **Internal Medicine: Clinical Application of Current Concepts**, University of Cincinnati Medical Center, Cincinnati.

June 11-14 **Neurology and the Internist sponsored by American College of Physicians**, Bowman Gray School of Medicine, Winston-Salem, North Carolina.

June 15-20 **Flying Physicians Association**, Lake Placid Club, Lake Placid, New York.

June 16-20 **Postgraduate Course in Crisis Counseling sponsored by University of Colorado School of Medicine**, Estes Park.

June 16-20 **Hematology for Internists with Emphasis on Recent Advances sponsored by American College of Physicians**, University of Rochester School of Medicine, Rochester.

June 20-22 **Symposium for Doctors in Private Practice, sponsored by Congress of County Medical Societies**, Denver-Hilton, Denver.

June 23-26 **American Orthopaedic Association**, The Homestead, Hot Springs, Virginia.

June 23-26 **Valvular Heart Disease, The Basis for Selecting Treatment sponsored by American College of Physicians**, University of Oregon Medical School, Portland, Oregon.

June 28-29 **American Diabetes Association**, Hotel Roosevelt, New York.

June 30-July 3 **Postgraduate Course in Ophthalmology sponsored by University of Colorado School of Medicine**, Colorado Springs.

July 2-7 **Annual Midsummer Meeting of International College of Surgeons, United States Section**, Whiteface Inn, Lake Placid, New York.

July 11-17 **Woman's Auxiliary to American Medical Association**, Waldorf-Astoria, New York.

July 13 **Annual Meeting of American College of Legal Medicine**, Warwick Hotel, New York.

July 13-17 **AMA Annual Meeting**, New York City

July 18-19 **23rd Annual Rocky Mountain Cancer Conference**, Brown Palace Hotel, Denver.

July 21-24 **New Mexico Chapter of American Academy of General Practice, 12th Annual Ruidoso Summer Clinic**, Chaparral Motel, Ruidoso, New Mexico.

July 21-25 **Postgraduate Course in Internal Medicine sponsored by University of Colorado School of Medicine**, Estes Park, Colorado.

July 23-25 **Montana Radiological Society Symposium**, Glacier National Park, Montana.

July 28-Aug. 8 **Clinical Management and Control of Tuberculosis**, National Jewish Hospital, Denver.

July 31-Aug. 2 **Postgraduate Course in Dermatology sponsored by University of Colorado School of Medicine**, Aspen, Colorado.

ABROAD

June 9-13 **Canadian Medical Association, 102nd Annual Meeting**, Toronto.

June 16-18 **Canadian Otolaryngological Society**, Winnipeg.

June 22-28 **23rd Assembly of World Medical Association**, Paris.

July 7-11 **Annual Scientific Meeting, British Medical Association**, Aberdeen, Scotland.

Aug. 10-14 **9th International World Congress of Otorhinolaryngology**, Mexico City, Mexico.

Aug. 10-15 **6th International Congress of Chemotherapy**, Tokyo.



Mr. Philip C. Irwin, of Des Moines (right), was presented a plaque emblematic of the Iowa Medical Society's John F. Sanford Award at the Society's annual banquet on April 29. Dr. Sanford was the first president of the IMS, in 1850, and the recipients of awards named for him have all been non-physicians who have rendered outstanding help to the medical profession in Iowa. Mr. Irwin, an actuary, has long been a member of the Board of Directors of Iowa Medical Service (Blue Shield).



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Iowa's Mental Health Centers

PAUL E. HUSTON, Ph.D., M.D.
Iowa City

LET ME MAKE A FEW comments on the future of Iowa's Mental Health Centers. As you know, we consider the Iowa system unique. It is a vigorous movement that has attracted national attention. As the director of the Iowa Mental Health Authority from 1956 until July, 1968, I gained some impressions of the main factors that contributed to our growth. These factors continue to exert their influence.

BRIEF HISTORY AND CURRENT STATUS OF THE CENTERS

The first center, the Des Moines Child Guidance Clinic, was organized in 1936. But it was not a Mental Health Authority center until later. In 1946 the federal government created the Mental Health Authorities in the states, and in 1947 the Iowa Legislature designated the State Psychopathic Hospital, in Iowa City, through its director, as the Authority for the state. Mrs. Opal Fore was employed, and the center movement began in earnest. Mainly through her efforts there were a total of eight centers by 1956. From 1956 through July, 1968, 12 more were added, and in January, 1969, two more, one in Polk County and another in Sioux City, the Siouxland Center, made a grand total of 22. You are all familiar with the gradual replacement of the white areas on the map of Iowa by dotted, shaded and cross-hatched patterns. In 1956 just 14 countries, representing 34 per cent of the state's population had access to centers. The accompanying map shows that in 1968 a total of 58 Iowa counties, representing 70 per cent of the state's population, had access to such facilities. In nine of the remaining 41 counties activity is taking place for the formation of new centers.

The numbers of persons served increased phenomenally—from 1,939 in 1956 to 13,132 in 1968.

With this increase in the number of centers, there has been a steady growth in professional personnel. In December, 1956, just 36 were employed; in 1968 the count showed 35 physicians, 48 social workers, 31 psychologists, 8 nurses, and 54 secretaries and clerks, making a total of 176.

For 1956 the total budget of the centers was $235,000; in 1956 it was $1,835,000; and for 1969 it was over $2,500,000.

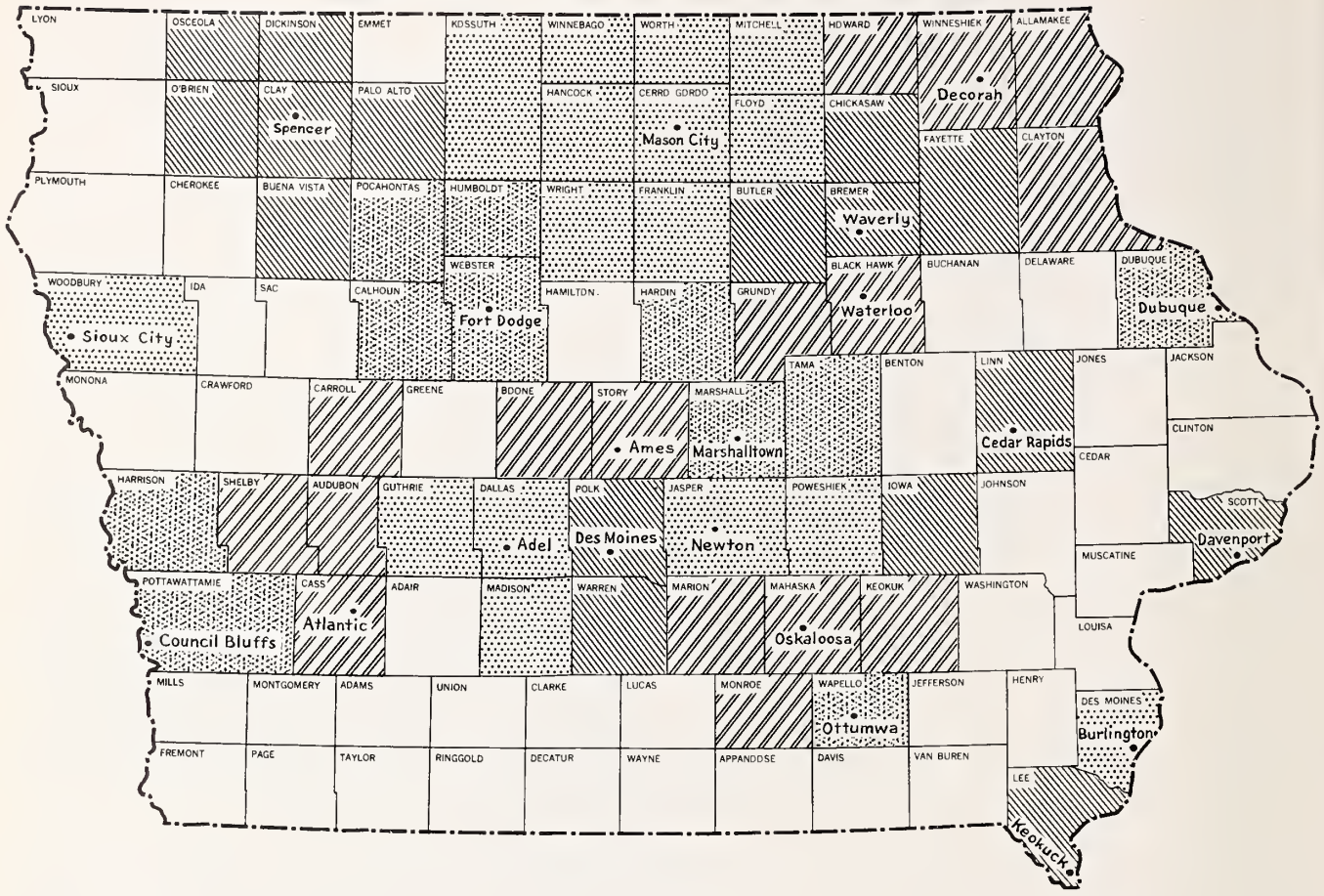
An examination of cases by age shows that about 40 per cent of the patients are children. The diagnoses cover all types, from transient situational personality disorders to psychoses. The vast majority of these do not require hospitalization. Published statistics on treatment outcome report 75 per cent of patients improved and 25 per cent unimproved.

In 1956 there were 85 persons on boards of directors; in 1968 the figure was 390.

Here are some important characteristics of the Iowa system: (1) The centers are autonomous units. They are privately incorporated and locally controlled. (2) The centers have boards of directors composed of influential citizens who represent socially-minded elements in the community, representatives of agencies that use the services of the centers, the county boards of supervisors, and from time to time, members of the General Assembly of Iowa. (3) The centers have used multiple sources of financing, drawing funds from the counties, from United Fund organizations, from fees for services and from gifts, plus small amounts from the Mental Health Authority. (4) The centers have regarded themselves as representing a partnership between public and private

Dr. Huston, the head of psychiatry at the University of Iowa, and until recently director of the Iowa Mental Health Authority, gave this address at the Fifty-ninth Quarterly Staff Meeting of Community Mental Health Centers of Iowa, Inc., held in Perry on February 12, 1969. On that occasion Dr. Huston was given a plaque in recognition of his contribution to the establishment of such facilities throughout the state.

Mental Health Centers and the Counties They Serve



funds and resources. (5) They have had an educational and consultative relationship with the Psychopathic Hospital through the Mental Health Authority. The central staff at the Hospital has provided the "know how" to communities on the organization of centers and their staffing, financing and operations. The Hospital—the major training facility for mental health care in the state—has assisted materially in persuading professionally trained persons to locate in Iowa communities. (6) Also important was the statewide mental health planning carried out under the direction of the Mental Health Authority in 1963, 1964 and 1965. Herbert L. Nelson, M.D.,* together with Verne Kelley, Joel Donovan and Pat Campbell, spearheaded this work. This activity involved various segments of state government, state institutions, the centers, medical societies and other professional groups, the institutions of higher learning, many knowledgeable citizens and the staff of the State Psychopathic Hospital. It stimulated thinking about mental health throughout the state, and many of its recommendations are yet to be implemented. A direct result of this planning has been a general acceptance of the concept of comprehensive care. To help implement this concept of local comprehensive care, several communities—Dubuque, Council Bluffs and Davenport—applied for and received grants of $3,250,000 for constructing and staffing new facilities. In addition, because we were ahead in our planning, Iowa has drawn $921,000 of construction funds previously allocated to other states.

Paralleling the center growth, the private practice of psychiatry has attracted more physicians, and psychiatric units in general hospitals have increased in number.

All of these elements together, it seems to me, have created a widely accepted forward movement in Iowa. The activities of the centers and the private practitioners, together with a lively, progressive attitude and improved staffs at the state mental institutions, has produced a phenomenal result when compared with the

* Dr. Nelson is Dr. Huston's successor as director of the Iowa Mental Health Authority, though Dr. Huston continues as head of psychiatry at the U. of I. College of Medicine.

rest of the country. A dramatic consequence of this change was the 73 per cent decline in the state-hospital population in Iowa, compared with 13 per cent for the nation, over a 10-year period. This caused the American Psychiatric Association to send a team of writers to Iowa in 1967, to get information for a report which was published in the April, 1967, issue of the JOURNAL OF HOSPITAL AND COMMUNITY PSYCHIATRY.

WHAT SHOULD WE DO TO CONTINUE OUR PROGRESS?

1. It seems to me that if the centers are to continue as viable organizations, they must preserve their unique characteristics. Specifically, this uniqueness consists of local autonomy with broad representations on local boards; multiple financing; high professional standards; an educational and consultative relationship with the State Psychopathic Hospital (which can be achieved most effectively by defeating attempts to move the Mental Health Authority from Iowa City); and the kind of local cooperation, including approval from county medical societies, which continues the attitude that the centers represent partnerships between public and private resources.

2. The centers must take the concept of comprehensive care more seriously. The federal definition of this concept includes 10 points:

a. Inpatient Service
b. Partial Hospitalization
c. Outpatient Service
d. Emergency Service
e. Consultation and Education
f. Diagnostic Service
g. Rehabilitative Service
h. Precare and Aftercare
i. Training
j. Research and Evaluation.

3. The concept of continuity of care must also be emphasized. For some patients this means long-term contact with the centers and applies particularly to rehabilitation (social, personal, vocational, etc.). An interesting side effect of the patients' shorter stay in state institutions has been a marked increase in the readmission rate. In most instances this high rate is a consequence of the local community's having no resources for providing the ex-patient continued or rehabilitative care. Better local followup work for state hospital ex-patients would lower the readmission rate. More local screening would prevent many first admissions.

4. Some people keep asking, "Can you prove that the centers do a good job?" and "Are they too expensive?" It seems to me that centers need to examine and reexamine their results in relation to the cost of care. Only by that means can such questions be answered factually.

5. There are problems that deserve more attention: alcoholism, juvenile delinquency, geriatrics, and the levels of care in county, nursing and custodial homes.

6. It is highly desirable to maintain a strong Association of Mental Health Centers in Iowa. It provides a forum in which you can share your problems with one another and can work out solutions for them. Moreover, it is through it that you can exert your collective strength on legislative issues.

Though I am no longer director of the Iowa Mental Health Authority, I am leaving it in good hands, those of Dr. Nelson and his staff. My association with all of you has been rewarding in terms of achievement and personal contacts. Good luck, and thank you.



Carroll O. Adams, M.D., a Mason City orthopedic surgeon (right), is shown as he received the IMS Merit Award from John H. Sunderbruch, M.D., of Davenport, chairman of the IMS Board of Trustees, at the Society's annual banquet on April 29. The citation praised his diligent and time-consuming work as a member of the Relative Value Study Committee. He is the twenty-eighth physician to be so honored, since the establishment of the Award in 1951.

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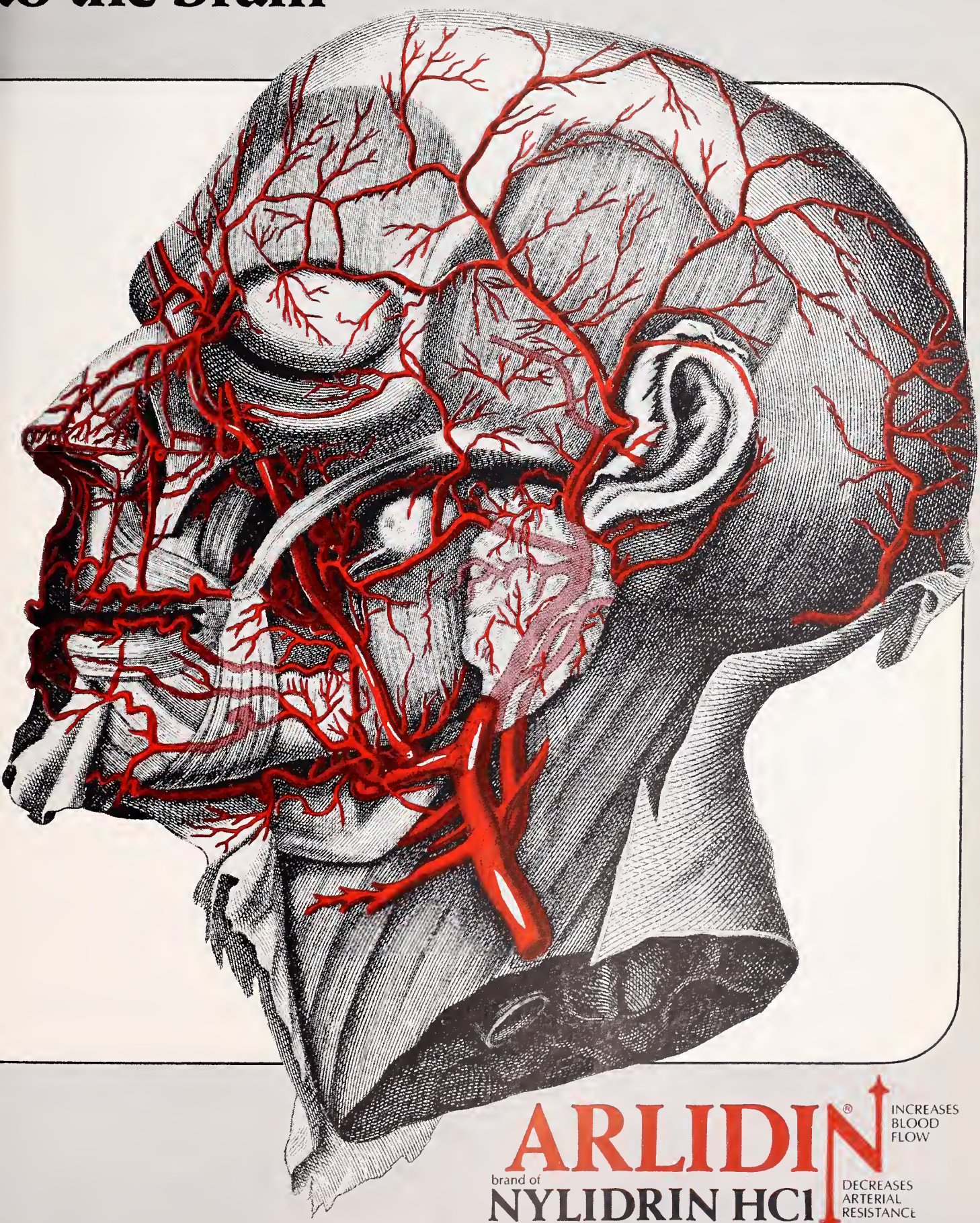
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Scientific Articles

Disaster Planning

HENRY S. BLAKE, M.D.
Topeka, Kansas

My topic is disaster-planning in general, and the Topeka tornado in particular. I shall divide it roughly into four parts. The first one will be a brief description of a disaster plan and its development. Second will be a discussion of the performance of that plan at the time of a disaster—i.e., our problems, what worked well and what went wrong. Third, if time permits I shall take up corrective measures. And last, I shall talk about the relationships between our hospitals and the Civil Defense Administration at the time of the disaster.

The development of our disaster plan took several years, and during that period several minor calamities occurred. The first of them was the collapse of a grandstand which tumbled many people to the ground and caused numerous fractures and other injuries. It certainly provided us a practical disaster drill. In addition, a tornado struck a nearby small town, and all of the casualties were brought to Topeka. Although the total number of injured was only about 100, it gave us what might be called a preview.

After my colleagues and I were appointed to the Disaster Committee, we undertook to prepare ourselves by reading all that we could find relating to disaster control. The material included the American Hospital Association's booklet on disaster plans, which contains a very helpful check list. We also studied the Army's handling of mass casualties, and acquired additional useful information. Then, after reviewing the plans of some other hospitals, we began to evolve our own.

PLANS MUST SUIT EXISTING FACILITIES AND CUSTOMS

We found out very quickly that we couldn't easily alter the physical structure of our hospital, so it was apparent that our plan had to be shaped to suit it. A list was made of the areas and other items that we concluded would be necessities in the management of mass casualties. As we studied the list, our needs became a little clearer. Areas were designated for triage, for the "walking wounded," for the labor pool, for patients' relatives, for the press, for the storage of stretchers and other supplies, etc.

During the area-assignment process, we became more fully aware of the questions that would need to be answered before we faced a disaster: What supplies would we need? What kind of stretchers should we use, and how can we keep them in circulation? Do we need guards for the doors? Do we have emergency power where it is needed? It was in our quest for diagnostic and treatment areas and other necessities that the fundamental constituent of a good disaster plan became apparent

Dr. Blake is a diplomate of the American Board of Surgery, chairman of the AMA Committee on Federal Medical Services, and a past-chairman of the Board of Directors of National Blue Shield. More importantly in the present context, he is medical commander of Stormont Vail Hospital's Disaster Plan, in Topeka. He gave this report at the 1968 annual meeting of the Iowa Medical Society.

to us. It is the maintenance of a "flow" of casualties. Certainly it is the basic ingredient of success. You can select perfect areas, assign excellent personnel, store supplies, and have all of the equipment that you need, but if you can't get the injured people to the right areas to see the proper doctors at the proper time, then you will have accomplished little, and the handling of casualties will end up in a great big mess!

Taking care of injuries is a doctor's business, and in most instances it poses no special problems for him—provided, of course, that he has the proper room, equipment, supplies and help. The real problem is that a disaster brings a tremendous number of patients to the hospital within a short period of time, and the ordinary emergency-treatment facilities are overwhelmed. When your disaster committee becomes aware of that fact and puts down on paper the methodology for a "flow of casualties," then you have the beginnings of a disaster plan.

A brief look at our plan may help, but I shall not dwell on it very long, for almost every plan must relate specifically to the particular physical plant of the hospital involved. We selected our emergency-room entrance as our triage area. We had three reasons for selecting it. The first was that the people in our community are in the habit of coming there with their injuries. Second, it is difficult to change patterns, once the flow of casualties has started. Third, all too often the arrival of the first group of casualties will constitute your first notice that a number of people have been injured and will require emergency care.

INSTANT TRIAGE AND TENTATIVE DIAGNOSIS

We station two physicians at this emergency entrance for what we call "instant triage." Those men have only one responsibility, and that is to make an immediate decision, in each instance, as to whether the casualty belongs in the "walking wounded" category, or should be examined more carefully and be considered for admission to the hospital as an inpatient. If the casualty is one of the "walking wounded," a green disaster-tag is tied to his arm. In the triage area no attempt is made to write anything on the tag, and specifically-assigned hospital personnel move the green-tagged casualties out of the triage area as quickly as possible and guide them, in small groups, directly to the "walking wounded" area.

Each of the more seriously injured people has a white but otherwise identical tag tied to his or her arm, and is then taken to an area immediately adjacent to the emergency entrance for a more complete triage. There, the admitting-office personnel obtain and record on the tag as much information as circumstances permit—data such as name, address, sex, age, religion, telephone number, and person to be notified. The examining physician makes a tentative diagnosis and indicates on the card where the casualty should go. Of course some patients are in severe shock or are unconscious, and nothing can be recorded on such a person's tag other than the tentative diagnosis and the triage disposition. Some casualties are admitted directly to the shock treatment area; some are sent directly to the operating rooms; and some are assigned beds in the hospital where they can await definitive treatment. At this stage the face sheet is torn from the disaster tag and is retained by the admitting department. The still-attached tag bears a carbon copy of all of the above information, and provides extra space in which data regarding treatment, drugs and disposition can be entered. That card is kept attached to the patient, and becomes a part of his medical record.

THE CONTROL CENTER

Just back of the triage area is a so-called control center where the medical commander is stationed. There we have a 3 x 5 ft. blackboard with permanent printing on it designating every patient area in the hospital, including the surgical suite. The numbers of beds available for casualties in the various areas are written on the blackboard, and the figures are continually updated by the admitting personnel stationed there. These people receive information from the various patient areas as to how many beds are available. The board also has on it the designations "male" and "female," those additions having been made after I sent three male patients to the obstetrics department during the influx of tornado victims. Next to the "available" column is a "sent" column. It is quite important to keep the latter up to date in order to avoid overloading or underloading any patient area.



Figure 1. Removal of injured from the half-mile-wide, ten-mile-long tornado path in Topeka, June 6, 1966. This and the other two pictures were taken by the Topeka Capital Journal.

This is as good a time as any to tell you of one feature of our disaster plan—that we attempt to assign the most critically injured victims to the operating-room floor, in order to reduce vertical traffic insofar as possible. Elevators can become a real bottleneck under the best of circumstances, but if your hospital is operating on emergency power they can become critical. I would urge that each of you check whether or not your elevators are on your emergency power circuit.

There is a check space on this blackboard of ours where we can indicate whether or not the physician assigned to a particular area has reported for duty. Each physician is asked to report to the medical commander at the control center when he comes in, and the commander places a check opposite the doctor's name on the blackboard and on his own assignment card. All staff physicians have assignments, and every year they are renotified of them. Some are assigned to specific areas of the hospital, such as the wards, operating rooms, emergency rooms, triage and so forth, and then there is a pool of unassigned physicians who are used wherever there is the most need. We have found this check-off list to be a valuable aid in keeping the medical commander up to date on the location of assigned physicians. Even more valuable has been the blackboard that I have described. It has been most helpful in getting the flow of casualties started and in keeping a current record of the beds available in the various parts of the hospital, as well as of the numbers of casualties who have been sent to each place. At the command center we

also have several methods of communication—the telephone, two intercoms (one of the operating-room suite and one to the "walking-wounded" area), and finally we have runners stationed there who can be sent on errands when necessary.

THE MISHAPS THAT OCCURRED FOLLOWING OUR TORNADO

The above has been a brief description of our disaster plan. Now how did it work after the tornado hit, on June 6, 1966, cutting a swath ¼ to ½ mile wide and 22 miles long, with 10 of those miles neatly bisecting our city from southwest to northeast?

I started for the hospital when the sirens first sounded, and nearly bumped into the tornado. I reached the hospital just as the tornado passed, some four blocks away. At the hospital there were problems on problems. Our first boo-boo became apparent just as I arrived. The power lines supplying the hospital had been torn down, so we went on emergency auxiliary power. During our planning we had been assured that the triage area, the "walking wounded" area and the control center would be on the emergency circuit. They were not! We immediately moved our major triage area into a lighted corridor, since injuries cannot be examined adequately if there is no more illumination than a flashlight provides. The second problem was that our phones were completely out. We couldn't make any kind of phone call —inside or out. Our intercoms were non-functional, and we had to depend upon foot messengers. As a consequence of this lack of communication, I continued sending patients with minor injuries to the "walking wounded" area, not knowing that there was no light there—that it was a "black hole of Calcutta." Fortunately, one of the men down there suggested that the patients might be taken through a tunnel to the County Clinic Building about a block away, where the electricity had not been disrupted. That was a good on-the-spot decision, but it did not end our difficulties with the "walking wounded." One of the big breakdowns occurred in that area, basically because physicians unfamiliar with surgery got into that treatment area and began suturing wounds.



Figure 2. Casualties were brought to the hospital in vehicles of all sorts, and frequently two or more concerned relatives arrived with a patient, thus adding to the crowding and confusion.

A recounting of how that happened will serve a useful purpose. The fact that the tornado cut our city in two made it impossible for many of our physicians, nurses and ancillary personnel to get to the hospital. In the path that the storm had cut, most of the streets were a jumble of blown-down trees, smashed automobiles and downed power lines. We hadn't anticipated that nearly half of our staff and ancillary personnel wouldn't get to the hospital expeditiously, but for the first half hour the administrator and the chief of nurses were not there, and more than a few of our personnel required several hours to get to the hospital. During that first half hour a mobile operator for a local radio station came in and asked me whether we had enough doctors and other personnel, and I replied, "Not yet." When he said he could help by broadcasting an appeal, I said, "Fine, just ask the Stormont Vail disaster personnel to report to their stations."

I can tell you that what he spoke into his transmitter was something quite different! The



Figure 3. Crowded corridor adjacent to the Emergency Room at Stormont-Vail Hospital, Topeka, following the tornado of June 6, 1966.

announcement that he broadcast repeatedly was, "All health personnel report to Stormont Vail!" It was well over an hour, and after repeated requests, before we got the appeal discontinued.

In our community we have many fine psychiatrists, and they responded to that indiscriminate call by coming to the hospital in droves. I was reluctant to turn them away, for they were anxious to help, and consequently I let them stay around without anything to do. A number of them found their way over to the area for the "walking wounded," and it was they who got hold of some equipment and began suturing wounds.

That constituted a real breakdown, for the only wounds that were to be treated were bruises, abrasions and puncture wounds. Any lacerations requiring sutures were to be taken care of in the emergency room by men experienced in that type of work. Our man in charge of the "walking wounded" area should have put a stop to it, but he didn't quite have the forcefulness to stand up and say, "No!" Consequently a lot of small, dirty lacerations from windblown missiles were primarily sutured. Some of those men made a second major mistake by ordering the administration of tetanus antitoxin to a number of patients without first performing sensitivity tests. Actually, very few of those people should have had anything other than a tetanus-toxoid booster, and it was the alertness of the nurses who were working with those doctors that put an end to the dangerous procedure, but only after a number of shots had been given.

Those problems that we encountered with our "walking wounded" illustrate three points: (1) The physician in charge of each area must be forceful, and the other physicians assigned

there must recognize his authority. If you are to handle a large number of casualties smoothly, you must establish and maintain almost military discipline. (2) With rare exceptions, it is better to progress slowly, using your regular staff, than to have outside physicians pitch in as a means of speeding things up. (3) Discuss possible communications problems with your local radio and TV station representatives in advance, so that in case of a disaster only authorized reports of hospital needs will be broadcast.

The cause of the difficulty with our phones was something we hadn't thought of, and something that the telephone people hadn't warned us about. When 75 per cent of the phone receivers in a major hospital are lifted at the same time, the circuits become flooded, and *none* of them will work. I don't know the electronic principles that are involved, but the effect resembles the blowing of a fuse in your home. Our hospital's telephone switchboard has now been altered so that if another disaster occurs, the operator can pull a master switch that will turn off all but the necessary emergency phones.

Our experience following the tornado made it obvious that we needed more emergency electrical power, and we have installed a much larger generator which allows us to use two elevators and to have considerably more lighted space whenever our regular power has been cut off. I strongly urge that each of you test your emergency circuits by first pulling the main switch at the hospital and then testing all of your emergency outlets.

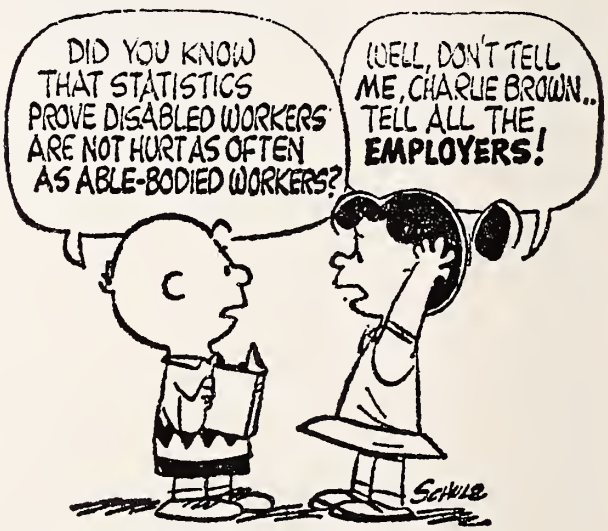
The handling of reporters and photographers poses problems. I grew up in a newspaper family, and I know how insistent reporters are about getting news—and how anxious photographers are about getting sensational pictures. The press wants to do a good job, and it is right that it should, but at times we literally had to push photographers out of the way in order to unload seriously injured people from the stationwagons, trucks, ambulances and all of the other vehicles in which they were brought to the hospital.

DON'T EXPECT OUTSIDE HELP, FOR YOU WON'T GET IT

We had no problems with the Civil Defense personnel—and we got no help from them either. Our CD man arrived two hours after the casualties had started to arrive. He came equipped with his two-way radio. He promptly announced: "It is a good thing our chief drilled us on an operation like this." Thereupon he walked down the corridor, turned around, and walked back out. That was our sole contact with the CD during the first night following the disaster. We didn't need anything from the CD, and thank goodness we weren't expecting anything. It is my conviction that CD orients its disaster planning to the problems that are expected to follow a nuclear attack. There is something to be said for that point of view, but it is far more important for you to prepare yourselves for the garden variety of disaster, and in the Midwest the garden variety of disaster is the tornado.

Be sure that your plan will stand on its own at a time of disaster. You must assume that you will *not* receive outside help. The Civil Defense people, the police and almost all other governmental personnel will have problems of their own—some of which they will not have anticipated. They will want to help, but they

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won't be in position to do so, and by the time they can, your real needs will be over.

CONCLUSION

After your have developed a plan, give it an adequate test. Hold a disaster drill, and repeat it at least every two years. I used to be opposed to such drills. I exclaimed, "My God, must grownup people play games like this?" But every time we conducted a drill we learned something new, so now I am very much of an enthusiast. I know, however, that with the next disaster will come confusion. The two go together, and perhaps the real purpose of a disaster plan is to organize the confusion.

Correction

In the third paragraph of Dr. Michael Bonfiglio's "Fracture of the Femoral Neck: Early Recognition and Treatment of Complications," on page 303 of the April, 1969, issue of the JOURNAL, an editorial change distorted the author's meaning. The paragraph should have been printed as follows:

"All too frequently, failure to recognize the factors responsible for a poor prognosis lead to the 'procrastination syndrome,' which, in turn, may insure poor repair of the fracture. These factors include proper reduction, interposition of neck fragments or invagination of the visceral capsule, proper internal fixation, early recognition of poor settling at the fracture leading to non-union, and early roentgenographic recognition of femoral-head density differences indicating aspetic necrosis (usually within six months)."

Tinkle Tunes and Piddle Patterns

WALTER A. KEITZER, M.D.
Akron, Ohio

I AM SURE THE TITLE, "Tinkle Tunes and Piddle Patterns" is just as amusing to you as it is to me. Strange as it may seem, the sound from the force of the urinary stream, striking a resonant object, can be used to determine how well a patient voids. A tape recording of this sound is called a "tinkle tune." However, listening to the sound of voiding is not a very accurate or scientific method of determining a patient's voiding efficiency. We have found that by converting the sound of voiding into a graphic pattern—a "piddle pattern"—we have a permanent scientific record of exactly how the patient voids.

DEVELOPMENT OF "PIDDLE PATTERNS"

In 1960, to make our physiologic voiding tests, or "piddle patterns," we chose to make a graphic record of the force of the urinary stream. We had rightly concluded that the physiologic changes in the bladder and urethra due to varying degrees of obstruction would be reflected in the voiding pattern. Since only energy can be converted, the pattern is a velocity energy curve or flow pressure curve. It can be measured in centimeters of water pressure. In fact this represents what is considered a pressure gradient across the urethra, in which the flow pressure in the urinary stream is equal to the voiding pressure in the bladder minus the loss of pressure in the urethra due to resistance.

Since our test is confined to the atmosphere, we eliminated the need to insert catheters or attach wires to the patient. By placing a transducer at right angles to the force of the stream, usually 12 to 14 cm. from the meatus, and with all of the parameters fixed except for force of the stream, we converted the velocity energy into electrical energy and then plotted it on a graph. During the past eight years we have used a 1,000 cc. stainless-steel graduate with a small microphone and a small portable tape recorder attached to it. Thus the test equipment is extremely mobile, and recordings can be made anywhere the patient can void, such as in the privacy of the office, hospital, school or summer camp. Many of the psychological problems involved in physiologic testing are thus eliminated. The test is easily reproducible, and

Dr. Keitzer is chairman of the Department of Urology at the Akron City Hospital. He made this presentation at the 1968 Annual Meeting of the Iowa Medical Society.

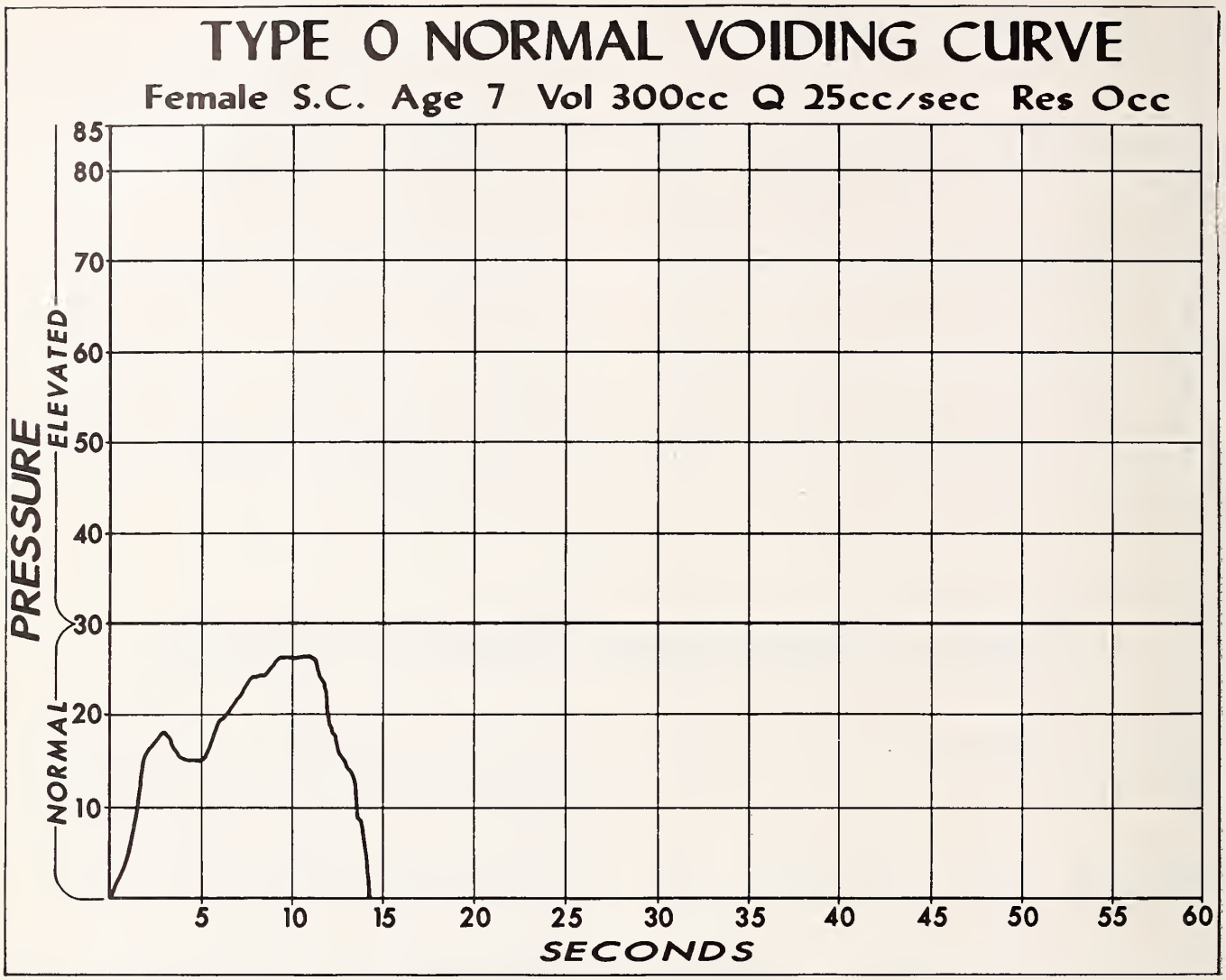


Figure 1. Normal voiding pattern, showing an average flow rate of 24 cc./sec. and an average flow pressure of 30 cm. H_2O.

is universally applicable to the majority of patients who will cooperate.

To process the audio tape recording, we have developed a voiding audiographic converter. This control unit fixes all the parameters of the test, including the level of recording upon the audio tape. In addition, when the tape is played back, the converter rectifies the sound and creates a visible "piddle pattern" upon a 10-inch-wide continuous paper record, on which the base line has been marked in seconds. By dividing the volume voided by the duration of voiding in seconds, we can easily obtain the average flow rate. That gives us the two urodynamic components required for determining how well the patient can void—i.e., the size and shape of the flow pressure pattern of the urinary stream and the average flow rate.

PHYSIOLOGIC VOIDING PATTERNS

Examination of a large number of voiding patterns will reveal two consistent facts: (1) Each individual will have an identical voiding pattern every day, unless some medication affects the tone of the bladder, or unless surgery is used to change the resistance of the urethra. (2) The voiding patterns of all individuals can be categorized into four distinct groups, depending upon the physiologic responses of the bladder and urethral muscles to varying degrees of resistance in the urethra. The four standard physiologic voiding patterns are as follows:

0. *The Normal Voiding Pattern (Figure 1).* The flow rate and flow pressures are directly proportional to the volume of urine voided. The curve is smooth because only smooth muscles are being used in the voiding process. The pattern is small because it takes the least amount of energy to empty the normal bladder. The flow rate shows the greatest variation in the normal—anywhere from 18 cc./sec. up to 50 cc./sec., depending directly upon the vol-

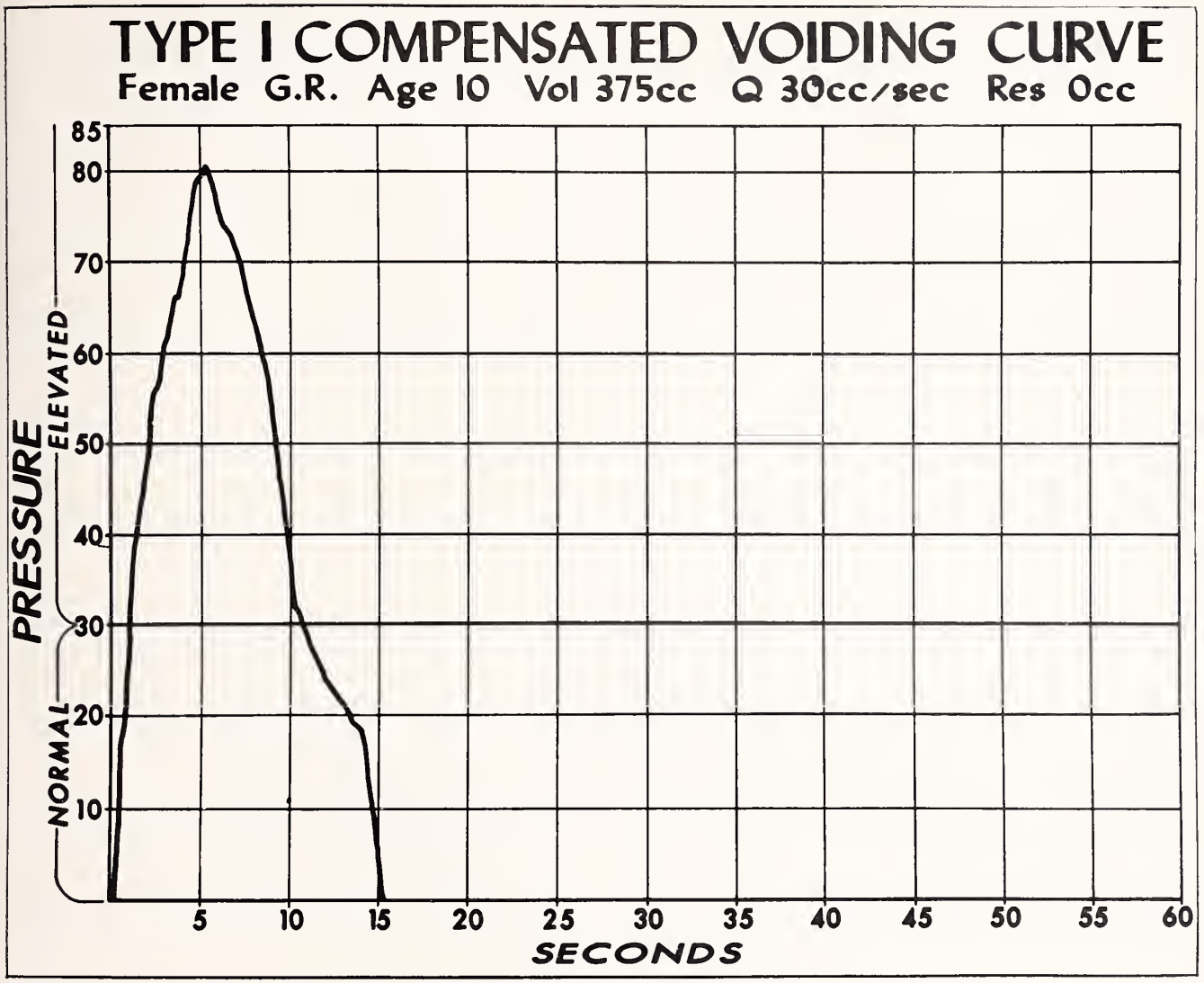


Figure 2. Compensated voiding pattern showing a high flow pressure and a normal flow rate.

ume. The flow pressure varies from 20 to 50 cm. H_2O, again depending upon the volume voided. Only 10 per cent of pediatric urology patients show a normal pattern.

I. *The Compensated Pattern* is due to hypertrophy of the bladder muscles during the early phase of obstruction in the urethra (Figure 2). This is a high-peaked, smooth curve. The flow pressure is markedly elevated to 70-120 cm. H_2O. The curve is still smooth, for only the bladder muscles are contracting. The flow rate varies from 15 to 30 cc./sec. Approximately 12 per cent of pediatric urology patients in our office showed this compensated type of pattern.

II. *The Decompensating or Failing-Bladder Pattern* occurs because lower-urinary-tract obstruction is a progressive disease (Figure 3). Here the bladder muscles have failed, but by using the accessory muscles in voiding—i.e., the abdominal and diaphragmatic muscles—and by straining, the patient can empty the bladder. Voiding takes more time, however, so the flow rate is decreased to 10-17 cc./sec. The flow pattern is irregular because the patient has used striated muscles while straining to void. There is no residual urine, except when patients have had large volumes to void. The pattern is somewhat equilateral in shape and larger than the other patterns. Some 60 per cent of the pediatric urology patients in our office showed this decompensating type of pattern. The majority of these children had recurrent urinary tract infections and enuresis. In other words, the failing bladder had lost its resistance to infection and had a reduced capacity as a result of trabeculation of the muscles, and the result was enuresis.

III. *The Totally Decompensated Bladder Pattern* is the end result of progressive obstruction

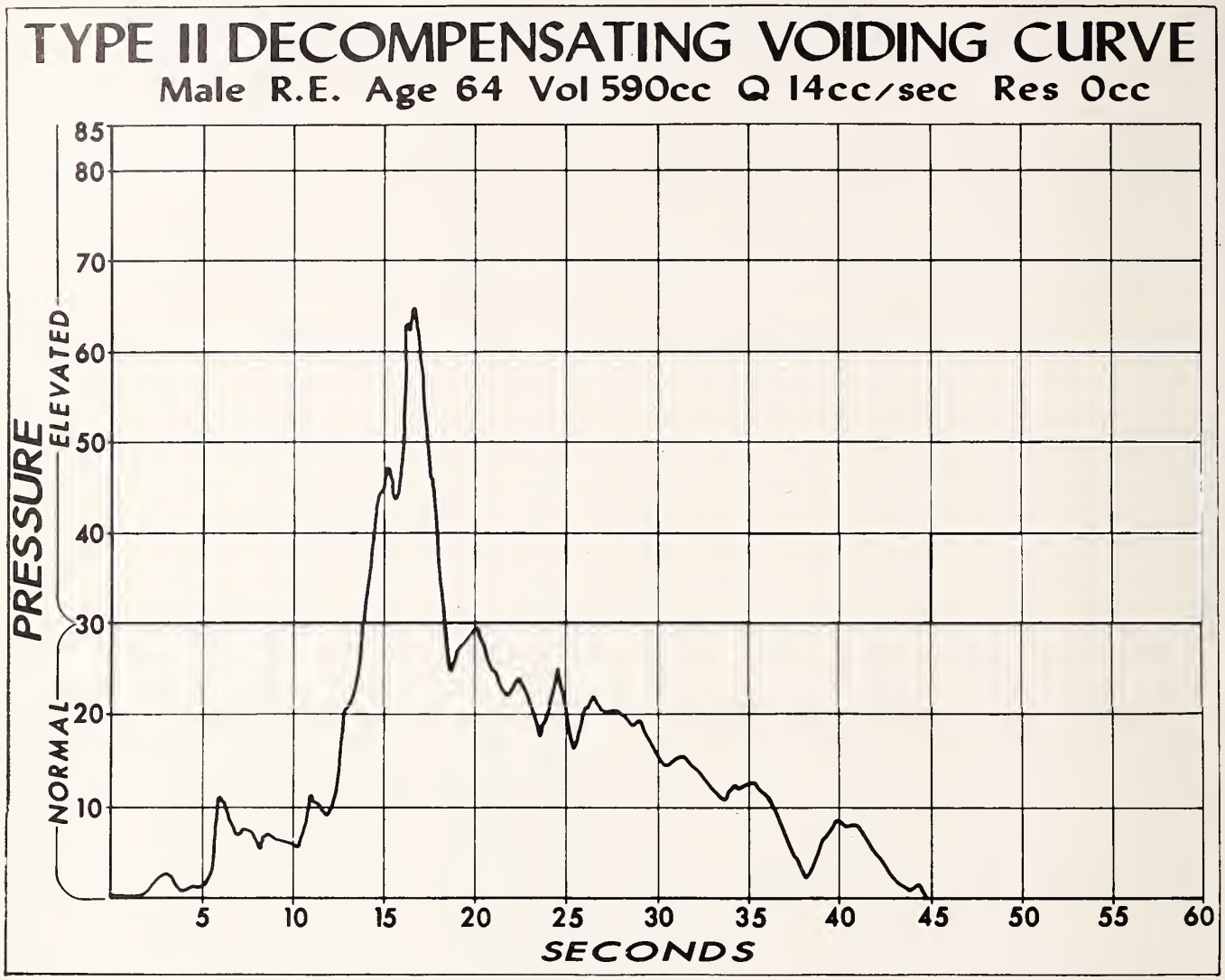


Figure 3. Decompensating voiding pattern with an average flow rate of 13 cc./sec. The flow pressure is elevated, but markedly irregular. No residual urine.

in the lower urinary tract (Figure 4). This is the typical pattern of the interrupted stream. Apparently the flow of urine is interrupted because the patient relaxes the accessory muscles at intervals in order to breathe. The flow rate is easily fixed under 10 cc./sec., regardless of the volume voided. Residual urine is always present. Some 18 per cent of the pediatric urology patients in our office had this type of pattern, but as a consequence of reflux, chills and fever these children were quite ill.

URODYNAMICS OF VOIDING

In order to understand why the "piddle pattern," or graphic voiding pattern, reflects the physiologic state of the bladder during voiding, one must have some understanding of the basic hydraulic principles involved. Our primary interest is in the force of the urinary stream in the atmosphere. The momentum equation provides us the simplified formula $F = QV$, which means that the force of the stream in grams is the product of two equally important components—the flow rate in cc./sec. and the velocity of the stream in cm./sec. It is impossible to use only one of those variables, such as the flow rate, to determine how well a patient can void. At least two of those components or their equivalents can be obtained from the graphic "piddle pattern" to show how well the patient voids.

In order to demonstrate how the flow rate and the velocity react with each other under varying degrees of resistance to flow, it is best to employ a familiar illustration. We shall use the ordinary garden hose with a nozzle attached. When the nozzle of the hose is open wide, there is a large volumetric flow rate, but

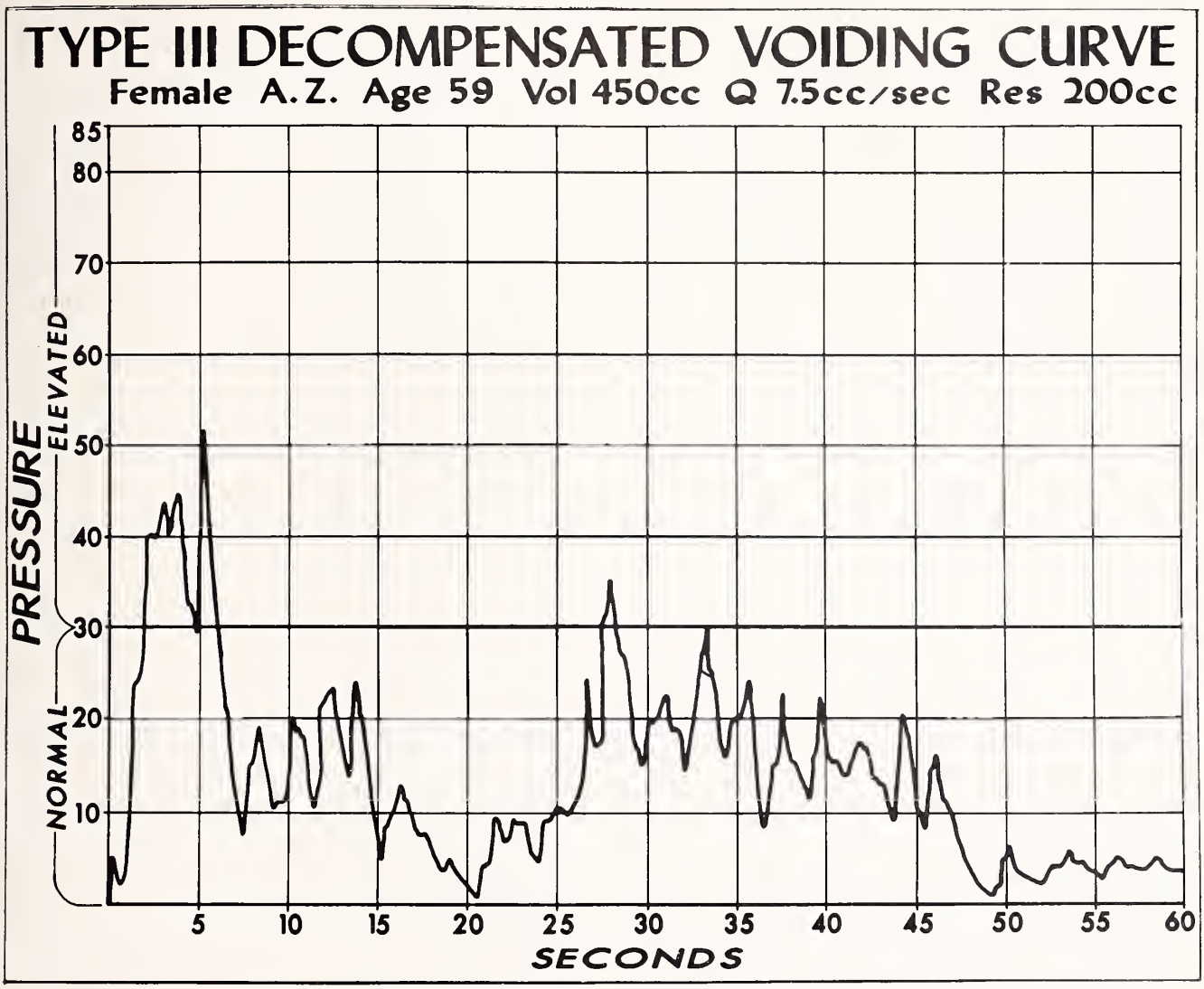


Figure 4. Totally decompensated bladder showing interrupted stream. Residual urine is always present.

little or no velocity or pressure to the stream. If we decrease the diameter of the nozzle, the velocity or pressure of the stream increases tremendously, and the water is ejected some 30 to 40 feet. At the same time, the flow rate is markedly reduced. As can readily be seen, the most important and controlling factor is the diameter of the nozzle. The diameter controls the flow rate and the velocity, and those two components are inversely proportional to one another in a rigid system of this type. Obstruction of the lower urinary tract involves simply a reduction in diameter somewhere in the urethra. However since the urethra and the bladder are muscular and elastic organs, they do not react like rigid systems, although the diameter of the urethra controls the flow rate and the velocity of the urinary stream. Their reactions need not be inversely proportional to one another.

PHYSIOLOGIC RESPONSE TO OBSTRUCTION

If we apply these few basic hydraulic principles to voiding, we obtain some interesting findings. First, the meatus of the urethra is the true nozzle of the urinary stream in both the male and the female. It has the smallest diameter during the act of voiding, and therefore it controls the flow rate and the flow pressure of the stream. Furthermore, the meatus is the most rigid part during voiding. Clinically, the meatus cannot be dilated, but must be enlarged by avulsion or tearing by means of large sounds, or cut with a knife or scissors.

Since the physiologic changes in the urethra and bladder and upper urinary tract due to obstruction are the result of energy changes, it is important to understand how the diameter affects the energy response of the bladder and urethra. This is based on the continuity equation, which states that if the flow rate Q is kept

constant, then the velocity energy will vary inversely as the diameter of the urethra raised to the fourth power. Theoretically, in other words, if we reduce the diameter of the meatus to one-fourth its normal size, the velocity will increase some 256 times. We call this an energy demand. Since the bladder is a muscular organ, it cannot respond to this large amount of energy. In fact it is often difficult for the bladder even to double its voiding pressure, let alone increase it 256 times. Therefore the bladder and urethral muscles must absorb this excess energy demand. The result consists of physiologic changes which we call hypertrophy or trabeculation of the bladder walls or muscles. In fact even a slight reduction in the diameter of the urethra can make a very significant energy demand upon the bladder and urethra, as we have been able to show experimentally.

What is not so well known is the response of the urethal muscles. Woodburne has shown that the bladder and urethra are one and the same muscular organ, and that when they contract together during the act of voiding, they produce a funnel-shaped opening. It is only logical, then, that if the bladder muscles hypertrophy, the longitudinal smooth muscles of the urethra must likewise hypertrophy. Since these are longitudinal muscles, their hypertrophy will be lateral, thereby further reducing the diameter of the urethra during voiding. These longitudinal smooth muscles involve the proximal four-fifths of the female urethra, and of the prostatic and membranous urethra of the male. The continual hypertrophy of these smooth longitudinal muscles of the urethra produces a progressive type of obstruction, or a vicious circle, which eventually produces diverticuli of the bladder, reflux, hydronephrosis, infection, hypertension, uremia and, at times, death.

CLINICAL OBSTRUCTION

The diagnosis of urethral obstruction in children is not a difficult one to make. The commonest symptom is enuresis. It occurs in well over 50 per cent of the pediatric urology patients, and it is equally divided between the sexes. Inspection of the meatus of the male will often show stenosis. This can be confirmed by bougie a boules examination, and the same thing applies to females. Infection in the urinary tract is much commoner in the female child, and is more likely to call attention to urinary problems in such a patient. Intravenous pyelograms should be done on all children with suspected urologic problems, but unfortunately it gives little diagnostic information—usually not more than 10 per cent positive findings. The voiding urethrogram or cystourethrogram, on the other hand, will give some 65 per cent positive findings, and it has the big advantage of being available in any x-ray department. However the best method—and it should be almost 100 per cent accurate—is cystoscopy under general anesthesia, combined with calibration of the urethra with bougie a boules. Any minor surgery can be performed at the same time.

A summary was made of all the cystoscopies performed at Children's Hospital, Akron, by 11 different attending urologists over a 10-year period. It showed that the patients had consisted of 3,050 males and 3,075 females, demonstrating that there are pediatric urologic problems just about as frequently in one sex as in the other. Seventy-three per cent of the male children had stricture of the meatus by examination, and also required meatotomy. A similar study made upon my own patients showed that some 73 per cent of the male children had stricture of the meatus, and that 79 per cent of the female children had stricture of the meatus by calibration bougie a boules. In other words, the commonest obstructive lesion of the lower urinary tract in pediatric urology patients is stricture of the meatus.

A less common cause of obstruction is pendulous urethral stricture in the male. It occurs in approximately 10 per cent of my patients. Posterior urethral valves occur in the male, and usually in the newborn or in infants. They are very serious. The diagnosis can easily be made by intravenous pyelogram, by voiding urethrogram and occasionally by cystoscopy. The mortality rate in this group of children is quite high. There are also patients with a quite severe fibrotic type of contracture. These apparently are due to rather severe infections of the urinary tract. If we add up all the obstructions of the lower urinary tract found at the time of cyctoscopy, we find that approximately 85 per cent of all pediatric urology patients do have some degree of obstruction. Then when we look at Table 1, showing physiologic voiding patterns made in the office on pediatric urology patients, we see

TABLE 1

PHYSIOLOGIC VOIDING PATTERNS

Classification	Office Patients Adults	Children
Total Patients	863	381
Normal Pattern	9.0%	9.0%
Compensated	6.3%	12.0%
DecompensatING	44.4%	60.0%
DecompensatED	40.0%	18.0%

TABLE 2

PHYSIOLOGIC VOIDING PATTERNS

Classification	100 Children Preoperative	Postoperative
Normal Pattern	0.0%	56.3%
Compensated	7.4%	16.0%
DecompensatING	65.5%	20.4%
DecompensatED	28.0%	7.0%

that approximately 85 per cent of the children also show evidence of obstruction in the lower urinary tract by that means. This coincidence suggests that obtaining a simple "piddle pattern" is a fairly accurate method of screening children with urologic problems.

TREATMENT OF OBSTRUCTION

Treatment of lower urinary tract obstruction should reverse the excess energy demand. In patients without severe upper tract damage, simple dilatation has been used for years. Unless the urethra is torn open, the urethra has to be dilated repeatedly. Meatotomy of the urethra and occasionally urethrotomy of the bladder neck by means of the infant urethrotome have given us the highest success rate in permanently relieving these obstructions in males. Urethrotomy by means of the adult Otis urethrotome has also been the method of choice in female children. These are full-length transurethral incisions starting at calibrations usually around 15 Fr, and cutting at 12, 3 and 9 o'clock up to approximately 35 Fr in the average child. A 30 Fr Foley bag catheter is left indwelling for 24 hours in the female. Delayed cystograms are made before the catheter is removed, to determine the degree of reflux. This method of treatment has given permanent relief from lower urinary tract obstruction to some 85 per cent of pediatric urology patients. Mild types of reflux will also disappear when the obstruction has been relieved. Children with severe upper-tract damage will require open surgery and usually reimplantation of the ureters to protect the kidneys.

We have also been able to use the "piddle pattern" to show this marked improvement in the patient's condition. Table 2 shows the results in 100 children who initially had various preoperative voiding patterns, and then three to six months later showed quite different voiding patterns. You will notice that there was a marked reversal in the energy patterns, showing definite improvement.

SUMMARY

Our experience with the physiologic voiding pattern during the past eight years has confirmed our original contention that the physiologic pattern reflects the changes in the bladder and urethra resulting from various degrees of obstruction in the lower urinary tract. Each individual voided with an identical pattern day in and day out, and all individuals could be classified as having one or another of the basic patterns, depending upon the degree of lower urinary tract obstruction.

Urodynamic studies showed that the force of the urinary stream was the product of two equally important components, i.e., the flow rate in cc./sec. and the velocity in cm./sec. A knowledge of both of these components is essential in determining how well a patient can void. The physiologic changes in the bladder and urethra were due to an excess energy demand resulting from a decrease in the diameter of the urethra. Most important, the velocity varied inversely as the 4th power of the diameter of the urethra, so that only a slight reduction in this diameter could produce a significant energy demand. Clinical observation of children and also physiologic voiding patterns demonstrated that 85 per cent of pediatric urologic patients had some degree of obstruction in the lower urinary tract. Simple meatotomy and urethrotomy correct the strictures permanently in the lower urinary tract, and reverse the energy demand in the vast majority of these children. Also, the voiding pattern can be used as a simple screening technique for picking up individuals having lower urinary tract problems.

Power-Mower Injuries

L. W. KNAPP, JR., M.S.,
W. H. McCONNELL, JR., B.S., and
FRANKLIN H. TOP, M.D.
Iowa City

It is estimated that 22,000,000 rotary power lawn mowers are in use in the United States, and that several million additional or replacement machines are purchased each year. Those machines, plus the small-estate tractors with lawn-mower attachments, portend ever-increasing numbers of injuries unless improvements in their design and greater care in their operation make them less hazardous.

Rotary power lawn mowers injure about 80,000 people in the United States annually, according to statistics released by the Injury Control Program Section of the United States Public Health Service. Eighty thousand is a sizable number of casualties, but it is apparent that since they are spread throughout the country, any one physician is unlikely to encounter more than a few. And he is not likely to hear of many, for only the spectacular accident receives much attention from the news media or is documented in medical annals.

Essentially, there are four kinds of rotary power lawn mowers: (1) hand-propelled; (2) walk-behind weed chopper; (3) riding; and (4) tractor-attachment. These machines perform similar operations, but they require different skills, and though the injuries they cause may be similar, the patterns leading to injuries can be quite different. One of us, Mr. McConnell, has been studying these accidents intensively in east-central Iowa since 1963, and has developed some cause-effect relationships.

Injuries associated with rotary power lawn mowers fall into two basic categories: (1) *cuts and amputations*, and (2) *punctures*. The former vary from minor lacerations to amputations of toes or fingers, and the punctures caused by stones or other objects thrown at high velocities may cause death in some instances. Epidemiologic investigations have been conducted in an effort to ascertain the man-machine-environment relationships. From reports of injuries secured from physicians and hospitals, the causes of accidents were assigned to five categories: (1) *thrown object;* (2) *bystander;* (3) *malfunction of equipment;* (4) *overt unsafe act;* and (5) *non-operational.* As increasing numbers of riding mowers were sold, a new category (6) *back-over* was added. *Thrown object* accidents are unique in that the operator almost never was aware that his machine was about to do something dangerous. Both the hand-propelled and the riding mowers can hurl things hazardously.

TYPES OF INJURIES

1. *Bystander* injuries actually are a sub-category of the *thrown object* type, but they are classified separately due to the fact that the injured person had no responsibility for the operation of the mower.

2. *Malfunction* injuries are ones in which a failure of the machine caused the operator to take an unsafe or sometimes an unfamiliar remedial action. *Overt unsafe acts* were those that the operators took when they failed to perceive an existing hazard, or foresaw the hazard and merely trusted to luck.

3. *Non-operational* injuries were those associated with repair of the machine, or with preparation of the machine for operation.

4. *Back-over* accidents usually occur when the operator reverses the mower and fails to perceive that a child is directly behind him. Injuries resulting from this type of error are usually very serious for they involve mowers of considerable size and the victim, more often than not, is a small child. Regularly, the child

Mr. Knapp is chief of the Accident-Prevention Section, Mr. McConnell is an agricultural-safety engineer, and Dr. Top is director of the Institute of Agricultural Medicine at the University of Iowa College of Medicine. Mr. Knapp made this presentation at a postgraduate conference on orthopedic surgery in Iowa City during November, 1968.

is backed-over almost completely before the motor is stopped, and injuries from the revolving blade or blades are extensive.

5. *Amputation injuries* are permanent and their repair requires considerable expertise.

Considerable attention needs be given to the more numerous and less publicized projectile-type accidents. Those that are most serious and sometimes fatal puncture the skull or some other vital area of the body. Less serious, of course, are those that penetrate the fleshy portions of the body or impinge upon the skeletal frame.

Two of the major problems facing those who treat projectile injuries are recognition of the potential severity of a small surface wound and determination that there is an imbedded foreign body and where it is located. A number of doctors who had experienced difficulty in determining the presence of a foreign body by means of probing and palpation pointed out the need for x-ray examination. The high velocity of the hurled object sometimes drives it a considerable distance from its point of entry.

DISCUSSION

Design improvements which our laboratory is suggesting to the manufacturers include reduction in the speed of the blade, greater stability for the machines—especially riding mowers—improved shielding as a means of preventing projectile accidents, and better starting-stopping and parking devices (e.g., clutches, brakes, etc.).

New educational material should be produced which will be more effective in warning against back-over accidents, and which will make operators more familiar with their machines and with the safest methods of using them.

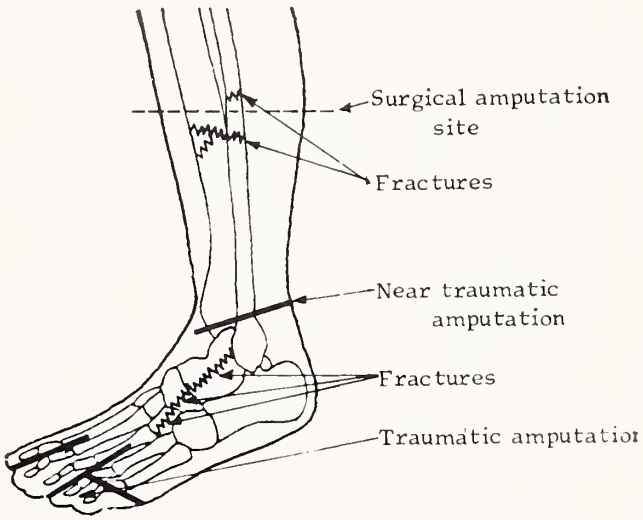


Figure 2. Amputation chart of a two-year-old victim of a back-over accident. The machine was a riding rotary power lawn mower.

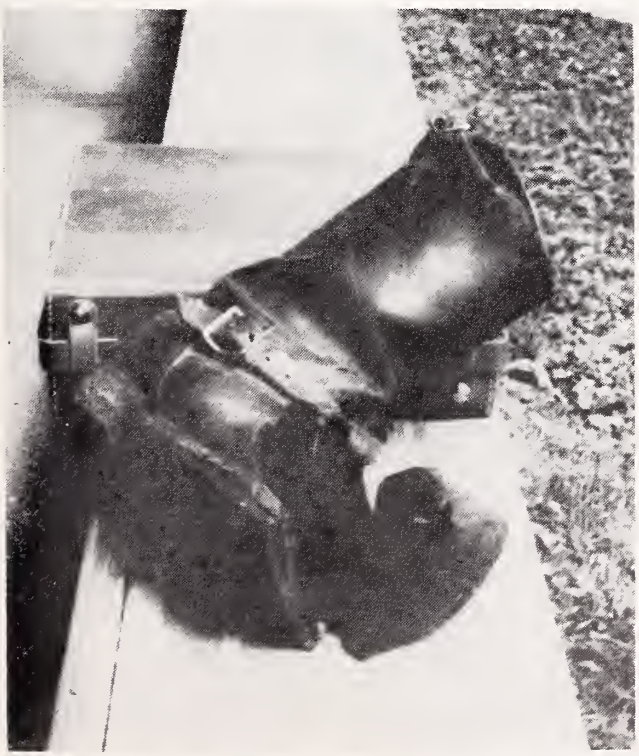


Figure 1. The operator of a power mower pulled the machine over his foot. One blow from the blade severed the end of his boot and amputated all of his toes.

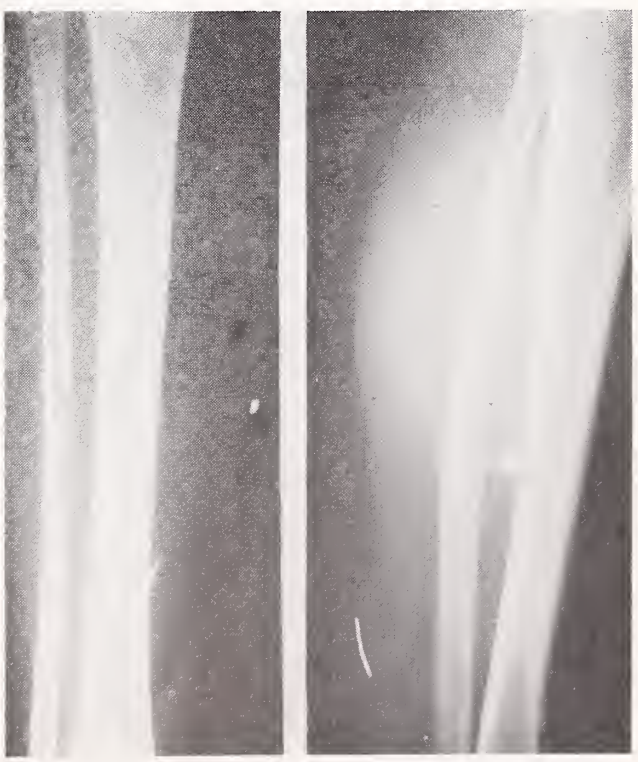


Figure 3. X-rays show wire object in leg several inches away from the point of entry (marked "OO").

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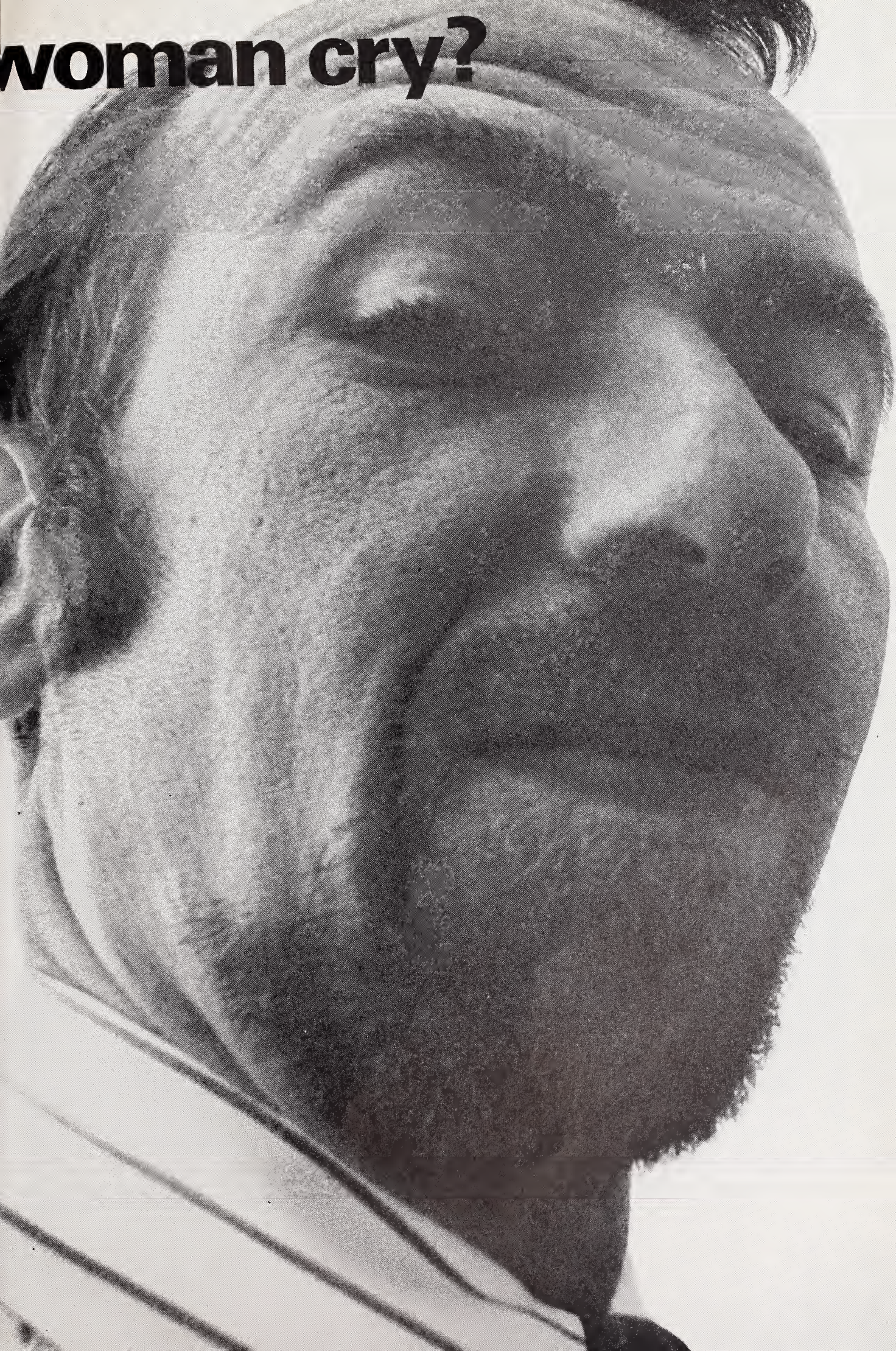
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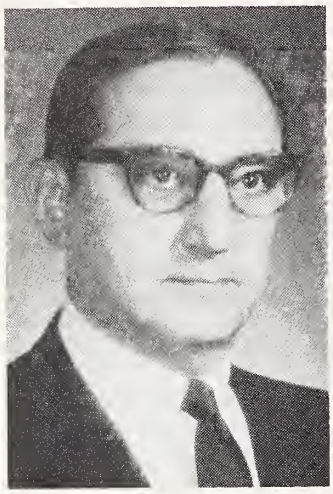
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President's Page



Iowa's legislative halls are quiet—not for long, however. After just seven months the lawmakers will convene again. In past weeks many Society proposals were enacted—only one defeated. Some will be delayed until 1970.

The legislative process is deliberate; sometimes it is excruciatingly slow. This pace has virtue on occasion, but at other times it can test one's patience.

Spade work is a requisite to the passage of most bills. This takes time. The Professional Corporation Bill (SF 554) is a case in point.

Recent favorable court decisions regarding professional corporations stimulated the interest of individual physicians and the IMS in the passage of permissive state legislation. This led the Executive Council to establish new Society policy in this area last January. Legislation was called for. In the ensuing weeks the Society found legislative backers, saw the Bill through the Legislative Research Bureau, got it introduced, and enlisted support from 10 professional groups.

In the waning stages of the 1969 session, the Bill gained a spot on the Senate non-controversial calendar, with passage recommended. Measures of higher priority dominated the closing days, however, and the bill moved no further.

The legislation retains its favorable calendar position for the opening days of the 1970 session. Prospects for passage are excellent. The Society's full effort will be exerted to that end, in accordance with the wishes of the House of Delegates.

(For summary of state health legislation, please see "In the Public Interest" Section)

Wm M. Kingsley MD

President



Editorials

THE COLLEGE STUDENT'S STRUGGLE TO "BECOME SOMEBODY"

Articles designed to help adults understand young people better and to help college students understand themselves and the ferment within themselves are seldom to be found in current medical literature. Thus it was gratifying to find one in the September, 1968, issue of the JOURNAL OF THE KANSAS STATE MEDICAL SOCIETY, by J. Cotter Hirschberg, M.D., director of training in child psychiatry and associate director of the Children's Division, Menninger Foundation.* In this era of war and of social unrest, it is imperative that we eliminate the credibility gap between generations. Dr. Hirschberg's contribution helps to close the chasm between home and campus, and it should strengthen communication and understanding between youths and their elders.

There are four major adjustments, he says, which a youngster must achieve simultaneously during his college years if his struggle to "become somebody" is to culminate in success. The first of these is to *effect a healthy independence.* He points out that the desire for emancipation often consists of rejection of the standards of the older generation and acceptance of the standards and philosophies of one's peers, and this emancipation can perhaps be best accomplished in a protective and stable college setting. The student uses the college as a place in which to search for and, hopefully, find a stable identification and ideals, and he gradually acquires an adult point of view that recognizes the existence of other people and of their rights and privileges, as well as of his own. He seeks to learn what life is all about, what he is to get out of it, what he must contribute, and how he can become a part of a community and of the world. As a result, he gradually assumes adult standards and responsibilities.

This is a period of physical and psychological disequilibrium, during which there is a shifting of impulses, of reality and of conscience. According to the author, "He questions; he doubts; he ventures forth on his own. He disagrees with elders about what they say or do, or what they advise. All this is a shift from instability to mature responsibility." The college years represent a period of gradually acquiring an adult point of view, and learning to see oneself as one of a group, while still maintaining one's own identity. It is emphasized that the emancipation and defiance can remain predominantly verbal if the college refrains from prolonging childish dependence by too strict control, and by hostility to young people's desire to share in decisions and policies. Interaction should lead to healthy independence, rather than to rebellion, but this requires time and effort, and it cannot take place in an emotional vacuum.

The second major adjustment in "becoming somebody" consists of *choosing a vocation* and performing the hard work that is required in preparation for it. If the student is to attain the necessary self-esteem essential to a successful, well-adjusted adult, he must recognize the value of work and prepare for a career which will enable him to make a contribution to society and which will bring him satisfaction and recognition. In choosing a career the student must take into consideration the resources within himself and the economic resources of his family. By experiencing frustration and enjoying satisfaction from his individual effort, he tests his own adequacy, and learns to deal with a world of reality, instead of one of fantasy and imagination. Through work and the

* Hirschberg, J. C.: Becoming somebody: achievement of emotional growth during college years. J. KANSAS M. SOC., **69**:402-405 (Sept.) 1968.

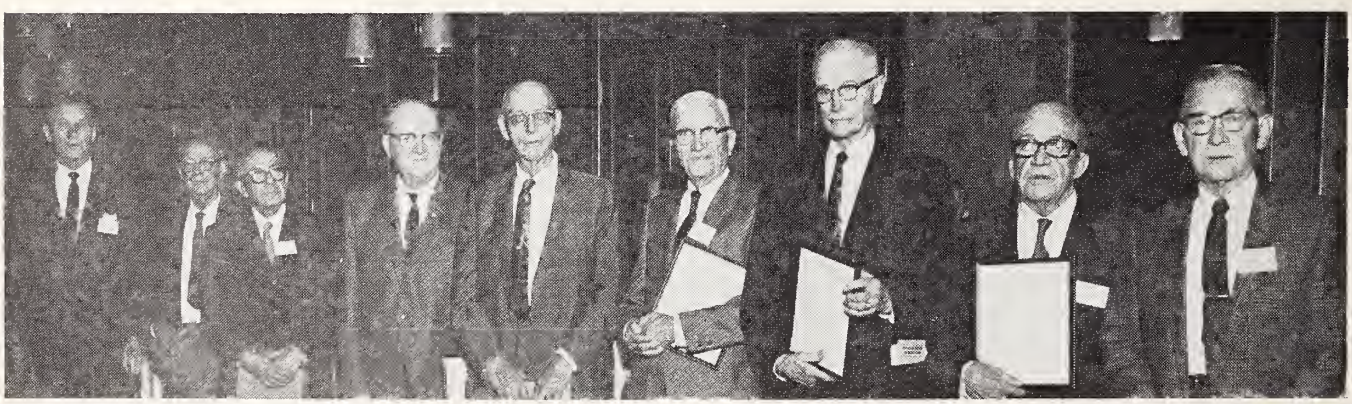
choice of a career, the college boy reinforces masculine identification, just as the choice exercised by the college girl strengthens her femininity. Also it is by serious application to the purposes of a college education that the individual resolves the problem of prestige and status in comparison with his peers. Dr. Hirschberg points out that if parents and the college environment fail to help the student resolve his dilemma about work, the adolescent frequently turns to his peer group, with which he has established an identity, in order to reinforce his defenses and support his efforts to be himself.

The third major adjustment to be made by a person in the 17-21 year age group is that of *developing a satisfactory relationship with the opposite sex.* The college years, hopefully, are a period for the development of a healthy adult level of sexuality—a time for growth to emotionally-healthy, knowledgeable young adulthood, with the skills, attitudes, values and standards which are essential to the making of choices that contribute to responsible personal development and lay the foundation for a stable and satisfactory marriage. Obviously, this is a difficult aspect of growing up, and the acceptance of sexuality is often tenuous and confused. The college student often attempts to lessen his anxiety about his increased sexual feelings by means of transient but intense friendships with peers of his or her own sex, or by peer-group attachments. It is, however, during this developmental period that a normal, wholesome heterosexual relationship evolves.

Despite what appears to be a changing concept of morality in our society, it is a reasonable assumption that wholesomeness and goodness and fineness are recognized and respected on college campuses fully as much as they are in a youth's home city or town. In this regard, college students of today are probably not much different from those of past generations.

Dr. Hirschberg lists as the fourth major adjustment *the development of a sense of clear identity.* He says that the goal, in the area of emotional health, is the development of a capacity to share with and enter into a group without a threat to or a loss of the sense of personal identity. The adolescent learns to be a part of a group, to have a defined role, to enjoy a feeling of adequacy and achievement, and to gain recognition. In Dr. Hirschberg's words, "As the college helps the adolescent into opportunities and experiences which give him skills and strengths to achieve a healthy independence, he feels that he is understood and comes better to understand himself and to be on his own."

It is unfortunate that the image of the present-day college student has suffered as a result of the actions of a small fraction of the students at many colleges and universities. The public respects the students' right to dissent and to oppose traditions and policies which they consider unfair and unwise. However it is disturbed by the demands, and the rebellion and



At its 1969 meeting, the IMS House of Delegates made 15 physicians Life Members. The qualifications for Life Membership are 50 years of medical practice and 30 years of IMS membership. The men pictured are, from left to right: Alfred E. Eggleston, M.D., Burlington; Paul E. Gibson, M.D., Des Moines; Roy N. Reuber, M.D., Mason City; Albert J. Jongewaard, M.D., Jefferson; John H. Tait, M.D., Des Moines; Robert H. Crawford, M.D., Burlington; Harold J. McCoy, M.D., Des Moines; Owen L. Frank, M.D., Maquoketa; and Warren H. Foster, M.D., Clinton. Those unable to attend the banquet, where the presentations were made, are Luther W. Loving, M.D., Estherville; William M. Rohrbacher, M.D., Iowa City; John H. Fraser, M.D., Monticello; Helen Johnston, M.D., Des Moines; J. Emmet Rock, M.D., Bettendorf; and Robert H. McBride, M.D., Sioux City.

rioting of minority groups from on and off the campuses which interfere with the educational programs for all students. The process of growing up is difficult enough at best, and college youths should be assured of an opportunity to resolve their inner conflicts and to work out their destinies in an atmosphere of equanimity and encouragement, rather than one of rebellion and violence. Somehow it appears wiser for the rebelling minority to expend their energies in the pursuit of knowledge, and to equip themselves to resuscitate and reform a society which they regard as sick and unjust.

> "When I was a child, I spake as a child, I understood as a child, I thought as a child; but when I became a man, I put away childish things."

ABDOMINAL AORTIC ANEURYSM

A review of experience in the surgical management of abdominal aortic aneurysms by Short and Mackey, of the Royal Infirmary, Glasgow, is a dramatic reminder of the progress which has been made in vascular surgery.* A condition considered hopeless not many years ago can now be corrected. "At the present time," they say, "in good circumstances resection of an unruptured aortic aneurysm has an overall mortality rate of less than 10 per cent, but should surgery be deferred until the aneurysm has ruptured, the operative mortality is 50 per cent or more. Patients surviving operation can expect a very satisfactory restoration of physical function."

The Glasgow surgeons report that from 1954 to 1967 a total of 52 patients with abdominal aneurysms were referred to them. An increasing number of referrals during the past five years has reflected an increasing awareness of the condition, and the possibility of treating it, rather than indicating a growing incidence of the disease. Of the 52 patients, eight were either rejected for surgery or were explored and closed without a resection of the aneurysm. The reasons for denying those patients the possible benefits of surgery consisted of severe cardiac or respiratory disease, too extensive involvement of the aorta, or the presence of other important intra-abdominal pathology. Two patients had associated thoracic aneurysms. Resection of the aneurysm was carried out in 44 of the group.

Fifteen patients were admitted as emergencies, with disruption of the wall of the aneurysm. Eleven of this group were in shock, and immediate operation was imperative. In four patients a small tear of the unruptured sac had temporarily sealed off, allowing a brief interval for assessment and preparation before operation. Nine of these patients died during or immediately following the operation, a mortality rate of 60 per cent.

The second group consisted of 16 patients who had symptoms attributed to expansion of the aneurysm, but without evidence of hemorrhage. There were two early postoperative deaths in this group as a result of complications, an overall mortality of 12.5 per cent. There were no deaths among the 8 patients operated upon during the last two years.

The third group of 13 patients comprised those in whom an aneurysm was demonstrable but symptoms were absent or minor. There were no operative deaths in this group.

The ages of the patients ranged from 54 to 80 years, and the greatest incidence was in the 65-69 five-year span. The development of aneurysm at this age level—over 60 years—is in keeping with the experience of others. By contrast, atherosclerotic occlusive disease of the aorto-iliac arteries usually occurs at a somewhat younger age. In a series of 52 consecutive cases operated upon for this condition by the authors, the mean age was 53 years.

The aneurysms were all atherosclerotic, with the exception of one in a woman 30 years of age, in whom the pathology was in doubt though it had originally been thought to be the result of cystic necrosis.

Though it was sometimes difficult to measure the aneurysm, particularly if it had ruptured, there were two that were under 5 cm. in diameter; 18 between 5 and 10 cm.; and 22 with diameters exceeding 10 cm. The authors found that aneurysms under 5 cm. in diameter usually are not palpable, and if they are caus-

* Short, D. W., and Mackey, W. A.: Experiences in surgical management of abdominal aortic aneurysms. SCOTTISH M. J., **13**:416-424, (Dec.) 1968.

ing symptoms they usually are saccular and are regarded as unstable and dangerous. In general, however, the larger the aneurysm, the more imminent the rupture.

The surgical treatment generally employed was resection of the aneurysm and restoration of arterial continuity by the insertion of a plastic prosthesis. In one patient a homograft functioned satisfactorily for five years, until the patient died from bronchial carcinoma. The first artificial graft was made from Orlon shirt material in the hospital's sewing room. Recent grafts have been made of Dacron or Teflon.

Of the 44 patients, 11 died during or within a week following the operation. Nine who died had been admitted with ruptured aneurysms, and seven died on the operating table of cardiac arrest. The remaining two patients survived the operation but succumbed from the same cause shortly after leaving the operating room. Among the 29 patients in whom the aneurysm was intact, 13 without symptoms and 16 with symptoms referable to the aortic lesion, there were two operative deaths. Both of these deaths followed a second operation the next day for the relief of distal arterial occlusion and incipient gangrene of the legs. There were no operative deaths in the last 13 cases operated upon for the removal of intact aneurysms.

The authors acknowledged that there were many complications which occurred both during and after the operation and which created serious problems in management. Hemorrhage was, of course, life-threatening in many patients with ruptured aneurysms, and they necessitated massive and rapid blood transfusions. Among the patients surviving the operation, the average amount of blood administered was 3 pints for the symptomless patients; 7 pints for patients who were symptomatic; and 14 pints for those with ruptured aneurysms. They pointed out that venous oozing was often massive and difficult to control. It was also found that in prolonged operations with excessive blood loss, a complex disturbance of the clotting mechanism was not unusual, and that transfusion of fresh blood was a most useful procedure. Postoperative oozing was troublesome, and it required vigilance to maintain blood volume.

At least half of the patients had evidence of a previous myocardial infarction, so it is not surprising that most of the deaths were due to cardiac arrest. With one exception, all patients who developed cardiac arrest were ones who were operated upon for ruptured aneurysms. In most of the patients with aortic aneurysm the degenerative arterial disease was present to a greater or lesser extent in the peripheral arteries, and some of the group had evidence of arterial insufficiency in the legs before surgery. As was to be expected, a number of patients had arterial occlusion from emboli or from thrombosis postoperatively.

There were numerous postoperative complications which challenged the surgeons' ingenuity. Respiratory insufficiency with resultant hypoxia and hypercapnia demanded skilled intensive care. Three patients developed acute tubular necrosis, and in two of them it followed cardiac arrest. Interference with the blood supply to the distal colon and rectum in some patients required special arterial anastomoses. The problem of wound dehiscence was solved through the use of a long transverse incision rather than a long paramedian incision.

Concerning the late results, they said that of the 44 patients operated upon, 33 survived and left the hospital alive. Three were lost to follow-up, but were known to be alive one year after operation. Twenty-one patients were still living at the time of the report, having survived for periods varying from six months to nine years. There were nine late deaths, most of which were not due to a failure of the aortic prosthesis.

The authors conclude from their experience and from that of others that the operative mortality rate for abdominal aortic aneurysm is dependent upon the stage at which the operation is performed. When an aneurysm has ruptured, the reported operative mortality lies between 50 and 80 per cent. When acute symptoms are present, indicating an enlarging aneurysm, the mortality is probably in the region of 10 per cent. When the lesion is asymptomatic, "the operation is almost safe." In the final sentence of their report they say, "Operation should be considered even in the apparently hopeless case, for when the operation is successful the patient is restored to a life which may not be long but is usually happy and useful."

UNEXPECTED RESULTS OF THE CHANGE IN BRITAIN'S ABORTION LAW

Apropos the agitation to liberalize the abortion law in Iowa, a contribution to the BRITISH MEDICAL JOURNAL for January 25, 1969, by Dr. T. L. T. Lewis, consultant obstetrician and gynecologist to Guy's Hospital and the Chelsea Hospital for Women, London, deserves the attention of physicians, lawmakers and the general public.*

Dr. Lewis's paper was a report to the Royal College of Obstetricians and Gynecologists concerning what has happened in England and Wales since the passage of the Abortion Act on April 27, 1968. He indicates that from the standpoint of the obstetricians and gynecologists, the magnitude of the impact of the legislation was entirely unexpected.

Dr. Lewis says that the College supported the proposal to make it legal to terminate pregnancy *only* on medical grounds—because of a risk to the physical or mental health of the mother, or because of substantial risk that the child would be deformed. The College also thought it was a part of good medicine to take into account the patient's total environment when assessing the risk to her health of permitting the pregnancy to continue. The group wished to preserve the doctor's right to refuse to participate in the treatment of any case in which he had an objection on grounds of conscience.

The College did not approve the clause permitting termination for the sake of existing children in the woman's family. Dr. Lewis says: "We did not expect a very great change in practice obtaining before the act."

Therapeutic abortions are notifiable to the Ministry of Health. In 1958, the number of such operations reported was 1,600, and in 1963 a total of 2,800 were reported. Contrastingly, in the first eight months following adoption of the Abortion Act, 22,256 therapeutic abortions were performed, and it is estimated that the total for the year will be 35,000. Sixty-two per cent were performed in National Health Service hospitals, and as a matter of fact nearly two-thirds of all the British abortions were performed in London hospitals. During the second and third quarters of 1968, a period during which 12,400 therapeutic abortions were performed, 47 per cent were in single women; 8 per cent in divorced, widowed or separated women; and 45 per cent in married women. Eighty per cent of the women were between the ages of 20 and 44; 14 per cent were between the ages of 16 and 19; and 2 per cent were in girls under 16 years of age. In two prominent London teaching hospitals, the number of therapeutic abortions performed in 1968 was eight times greater at one institution and 14 times greater in the other than it had been in 1963.

Dr. Lewis states that the experience at the London hospitals is quite typical. In addition to the 62 per cent of therapeutic abortions performed in N.H.S. hospitals, he asserts that "large numbers of pregnancies are being terminated in registered nursing homes ["Nursing home" is the British term for "non-governmental hospital"] for reasons of convenience and financial gain masquerading as legal operations under the new Act."

He asserts that the high rate of such operations in National Health Service hospitals and elsewhere will continue unless there is a remarkable change of heart by a permissive society. He thinks it is unreasonable to expect gynecologists to adopt a moral attitude completely at variance with that of society as a whole. Behind the bare facts, he declares, "lies a tremendous amount of clinical and social inquiry, heart searching and mental anguish."

An editorial in the same issue of B.M.J. points out that the morbidity and mortality associated with therapeutic abortions performed by qualified physicians and done with skill in well-equipped hospitals are by no means negligible. However an increase of legal abortions done under the Act, if accompanied by a reduction in illicit abortions, should reduce the perinatal mortality rate. Since those women who seek abortions for unwanted pregnancies are a high-risk group, it will be of great interest to ob-

* Lewis, T. L. T.: Abortion Act, BRITISH M. J., 1:241-242, (Jan. 25) 1969.

serve the maternal mortality rate. In large measure, it will depend upon the skill with which the operation is performed and the conditions under which it is done. The great increase in the number of pregnancy-interruptions since the Act went into effect indicates that there must have been great difficulty in providing proper accommodations for such patients. This raises great doubt regarding the standards of the places where abortions are performed and the facilities that are available there. The medical profession, the editorial says, has an obligation to protect these women who are particularly vulnerable to exploitation.

Although the Abortion Act brought many Britons what they wanted—a more liberal attitude toward the termination of pregnancy—the B.M.J. editors call it a hasty bit of legislation which resulted in an unusually imperfect law—one that fails to protect the public from the unskilled and the unscrupulous, and one that fails to require registration of the places where abortions may be carried out. Furthermore, the law imposes an extraordinary load on qualified gynecologists and requires hospitals to provide beds for increasing numbers of patients. This may lead to the establishment of abortion clinics, and raises the question of whether such institutions would be desirable.

The editorial concludes that the number of unwanted pregnancies which the figures indicate underlines the need for all N.H.S. doctors to provide adequate and accurate advice on contraception.

It is to be hoped that we can benefit from the British experience, and that if efforts are made to liberalize the legal indications for therapeutic abortion in Iowa that the legislature will proceed cautiously and avoid the serious mistakes which have been made elsewhere. It still has not been proved beyond doubt that broadening the indications for therapeutic abortion has reduced or will reduce the incidence of self-induced or criminal abortions. The British experience in this regard needs to be watched very critically.

SEX EDUCATION IN THE SCHOOLS

The conflict over the manner of sex education in our public schools, as evidenced by this year's session of the Legislature, has created more heat than light. The background will be outlined briefly now, for Iowa physicians, and more detailed information will be submitted later in the JOURNAL'S "In the Public Interest" section.

Attempts to curtail or even prohibit sex education in the schools call for vigorous protest, not only from physicians as professional men, but from physicians as private citizens. The same type of unenlightened zeal hindered VD education 30 years ago and has hounded those desiring good changes over an even greater number of years.

During the past 15 years there has been close liaison between the IMS and the State Department of Health, the state universities, Drake University and the State Department of Public Instruction, regarding this activity. School health-education programs were developed as refresher workshop courses for teachers and public health nurses every summer at each of the four universities. Care was taken that each course presented some instruction, in depth, on sex education as championed by the Sex Information and Education Council of the United States (SIECUS) director, Dr. Mary Calderone. The University of Northern Iowa, at Cedar Falls, had a four-week health-education institute during the summer of 1968, and it will have its second institute this summer under the direction of Dr. Lee Ball, of Mankato State College, in Minnesota. Participants are selected because (1) they presently are engaged in teaching or supervising the teaching of health in elementary or junior-high grades; (2) they give evidence of creative and effective teaching in health; (3) they have at least three years' experience; and (4) they plan to continue teaching in Iowa following the institute.

Besides this base operation, the IMS and the speakers' bureaus of various county medical societies have provided speakers on sex education, as requested. Many local school boards have approved excellent teaching guides

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Although *Trichomonas vaginalis* infection occurs in only 5 to 10 per cent* of men, careful diagnosis will demonstrate the condition in about half of all husbands of infected women. Nine investigators* reported an average incidence of 50.8 per cent in exposed consorts.

Many clinicians have achieved a high degree of success in treating trichomonal vaginitis only after they have recognized the importance of sexual partners in perpetuating the infection. Crowley* has asserted, "it was not until we acted on this key premise that we were able to obtain positive and lasting results in our management of recurrent vaginal trichomoniasis."

Simple ten-day oral treatment with Flagyl virtually assures elimination of established trichomonal infection in men. In twenty-two of twenty-seven studies* data on the results of treating male patients revealed that all men treated with Flagyl were cured.

Indications: Flagyl is indicated in the treatment of trichomoniasis in both men and women.

Contraindications: Pregnancy; disease of the central nervous system; evidence or history of blood dyscrasia.

Precaution: Complete blood cell counts should be made before, during and after therapy, especially if a second course is necessary.

Side Effects: Infrequent and minor side effects include nausea, metallic taste and furry tongue. Gastrointestinal disturbances, flushing and headache sometimes occur, especially with concomitant ingestion of alcohol. The taste of alcoholic beverages may be altered. Other effects, all reported in an incidence of less than 1 per cent, are diarrhea, dizziness, vaginal dryness and burning, dry mouth, rash, urticaria, gastritis, drowsiness, insomnia, pruritus, sore tongue, darkened urine, anorexia, vomiting, epigastric distress, dysuria, depression, vertigo, incoordination, ataxia, abdominal cramping, constipation, stomatitis, numbness or paresthesia of an extremity, joint pains, confusion, irritability, weakness, cystitis, pelvic pressure, dyspareunia, fever, polyuria, incontinence, decreased libido, nasal congestion, proctitis and pyuria. Elimination of trichomonads may aggravate candidiasis.

Dosage and Administration: *In women:* one 250-mg. oral tablet three times daily for ten days. A vaginal insert of 500 mg. is available for local therapy when desired. When used, one vaginal insert should be placed high in the vaginal vault each day for ten days; concurrently two oral tablets should be taken daily.

In men: When trichomonads are demonstrated, one 250-mg. oral tablet twice daily for ten days in conjunction with treatment of his female partner.

Dosage Forms: Oral tablets—250 mg.
Vaginal inserts—500 mg.

*Complete list of references on request.

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Treatments with NTZ should be repeated every three or four hours as needed. NTZ is for temporary relief of nasal symptoms and overdosage should be avoided. Available in squeeze bottles of 20 ml. and 1 oz. bottles with dropper.

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listed under "Personal and Family Health," "Family Relations," "Sex Education" and "Interpersonal Relations." These programs have been accepted and endorsed by local PTA groups with very few exceptions. The exceptions were usually in schools where adequate groundwork had not been laid.

The pedagogy of sex is indeed mercurial. Contrary to popular notion, the home has not been particularly effective in teaching sexuality. Neither has the church, the physician and/or the nurse. The three effective sources of information on this subject—peer groups, forms of mass culture and schools (listed in order of effectiveness)—have peculiar advantages and disadvantages. Peer groups, according to William Simon and John H. Gagnon, of the University of Indiana's Institute of Sex Research,* are "age-mates who manage to put together odd pieces of information, legend and first-, second- and third-hand experience, and frequently add novel or innovative features that are purely consequences of distortion in the rumor process." As for forms of mass culture, it is possible to present many facts about sex and sexuality from which youngsters can pick out the information they feel they need. This "shotgun" technique will cover a wide range of topics, but it will lack personal involvement and will fail to provide young people with immediate answers to their questions. Too often, in both mass-media culture and school programs, there is a lulling of the anxieties of both parents and educators simply because "something is being done," even though it is an empty ritual.

"The schools, to judge from available data, are the least effective," Simon and Gagnon tell us. "But they do have the virtue of being the only one of the three that in the immediate future might become the object of self-conscious programing. This is why recent trends toward increasing sex education in the schools ought to be encouraged. However, while receiving as much encouragement as possible, it is equally important that such programs be subjected to the most critical scrutiny. This is clearly an area where good intentions are not enough. Too quickly, programs can become the empty rituals that serve to lessen the anxieties of parents and educators (i.e., 'something is being done') and, at the same time, only reinforce the adolescents' already well developed belief in the unhealthy and hypocritical posture of adults toward sex."

It is of paramount importance that lecturers on sex become able to discuss the subject in a relaxed manner—not clinically, but casually and NON-JUDGMENTALLY! Youths are alert to recognize deception, and the difference between what people do and have felt about their own sexual activities, and what they *say* they do and feel" is what wrecks the sex education that is undertaken by nearly all parents, teachers, ministers or physicians. "Ideally, if we can tell students the truth—no matter when or how—and especially if we can tell it without judgment, when the student needs the information and in a way that ties to his daily experience, we are on the way to improving and changing human sensibility."

—*Craig D. Ellyson*, M.D.



As director of the Iowa Commission for the Blind, Mr. Kenneth Jernigan, of Des Moines (left), accepted the Iowa Medical Society's Washington Freeman Peck Award from Cecil W. Seibert, M.D., of Waterloo, the 1968-1969 IMS president, at the annual IMS banquet on April 29. Mr. Jernigan and his staff have earned an international reputation for enabling sightless people to become self-reliant and self-supporting. The citation that was read to him mentioned, among other things, that expenditures for Aid to the Blind, in Iowa, are now at their lowest point. Dr. Peck, for whom the Award was named, was a Davenport surgeon who gave considerable time and attention, during and after the Civil War, to the management of an orphanage there. The recipients have always been organizations or institutions that the IMS wished to praise.

* Simon, W., and Gagnon, J. H.: Pedagogy of sex. SATURDAY REVIEW, Nov. 18, 1967, pp. 76, 77 and 91.

Convalescing . . . but still a long way to go. Anxiety can make it even longer.

Convalescence following medical or surgical procedures may be almost endless to an anxious patient. And, indeed, anxiety with some patients actually retards progress—for example, by inducing insomnia and reducing cooperation.

As physicians have found during nearly 15 years of widespread use, Equanil may be a beneficial part of aftercare. It helps relieve anxiety and tension, thus often aiding your primary therapy.

Indications: For use in management of anxiety and tension occurring alone or as accompanying symptom complex to medical and surgical disorders and procedures. Though not a hypnotic, fosters normal sleep through antianxiety and related muscle-relaxant properties.

Contraindications: History of sensitivity to meprobamate.

Important Precautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use has been reported to result in dependence or habituation in susceptible persons, as alcoholics, ex-addicts, and other severe psychoneurotics. After prolonged excessive dosage, reduce dosage gradually to avoid possibly severe withdrawal reactions. Abrupt discontinuance of excessive doses has sometimes resulted in epileptiform seizures.

Warn patients of possible reduced alcohol tolerance, with resultant slowing of reaction time and impairment of judgment and coordination.

Reduce dose if drowsiness, ataxia or visual disturbance occurs; if persistent, patients should not operate vehicles or dangerous machinery.

Side Effects include drowsiness, usually transient; if persistent and associated with ataxia, usually responds to dose reduction; occasionally concomitant CNS stimulants (amphetamine, mephentermine sulfate) are desirable. Allergic or idiosyncratic reactions are rare, but such reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Previous history of allergy may or may not be related to incidence of reactions. Mild reactions are characterized by itchy urticarial or erythematous maculopapular rash, generalized or confined to groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have been reported. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. If allergic reaction occurs, meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Treat symptomatically as with epinephrine, antihistamine and possibly hydrocortisone. Aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia have occurred rarely, almost always in presence of known toxic agents. A few cases of leukopenia, usually transient, have been reported on continuous administration.

Meprobamate may sometimes precipitate grand mal attacks in patients susceptible to both grand and petit mal. Extremely large doses can produce rhythmic fast activity in the cortical pattern. Impairment of accommodation and visual acuity has been reported rarely. After excessive dosage for weeks or months, withdraw gradually (1 or 2 weeks) to avoid recurrence of pretreatment symptoms (insomnia, severe anxiety, anorexia). Abrupt discontinuance of excessive doses has sometimes resulted in vomiting, ataxia, tremors, muscle twitching and epileptiform seizures. Prescribe very cautiously and in small amounts for patients with suicidal tendencies. Suicidal attempts have resulted in coma, shock, vasomotor and respiratory collapse and anuria. Excessive doses have resulted in prompt sleep; reduction of blood pressure, pulse and respiratory rates to basal levels; and occasionally hyperventilation. Treat with immediate gastric lavage and appropriate symptomatic therapy. (CNS stimulants and pressor amines as indicated.) Doses above 2400 mg./day are not recommended.

Composition: Tablets, 200 mg. and 400 mg. meprobamate. Coated Tablets, WYSEALS® EQUANIL (meprobamate) 400 mg. (All tablets also available in REDIPAK® [strip pack], Wyeth.) Continuous-Release Capsules, EQUANIL L-A (meprobamate) 400 mg.

EQUANIL®
(meprobamate)

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April 10-11, 1969

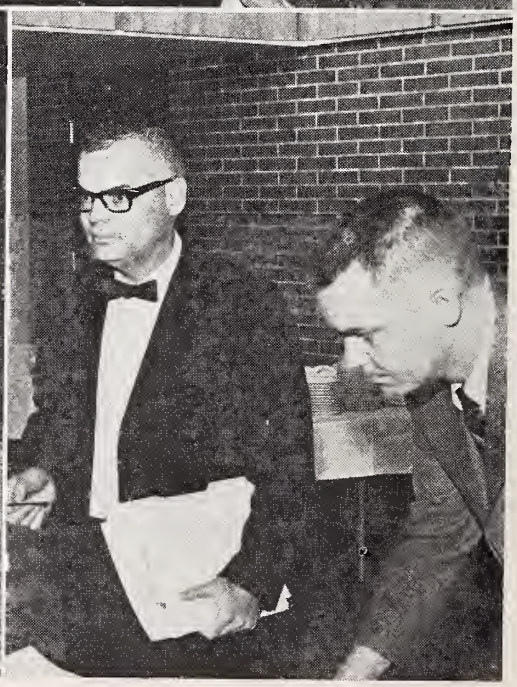
In the top picture on this page are Laverne Wintermeyer, M.D., Des Moines, chairman of the Conference, and Charlotte Fisk, M.D., Des Moines. In the left center picture are Samuel Katz, M.D., of Duke University, one of the guest speakers; William Bell, M.D., of the U. of I., another of the speakers; and Ralph E. Dyson, M.D., and Everett A. Nitzke, M.D., both of Des Moines. In the right center photo are Lee Forrest Hill, M.D., of Des Moines, and Jack Steffey, M.D., of Pomona, California. On the bottom at the left are Howard H. Hildebrand, M.D., of Ames; George G. Caudill, M.D., of Des Moines; and Mitchell I. Rubin, M.D., of Buffalo, New York, a guest speaker. On the bottom at the right are William C. McCormack, M.D., and Paul G. Koellner, M.D., both of Ames.

In the top left picture on the right-hand page are Mr. Lorrie Sarf, a medical student at the U. of I., and James Anderson, M.D., a resident in pediatrics at the University of Wisconsin. In the right-hand top picture are Heinz Eichenwald, M.D., of Dallas, Dr. Bell and A. M. Lauer, M.D., of the U. of I. faculty. In the bottom-left picture are George J. Klok, M.D., Y. A. Frankur, M.D., and Elmer Bean, M.D., all from Council Bluffs, and in the bottom-right photo are Charles L. Burr, M.D., of Des Moines, Brace I. Knapp, M.D., of Salem, Oregon, and Paul R. Nelson, M.D., of Bloomington, Illinois.





















Case Studies



THE FAILURE OF A GYNECOIL

N. L. REITZEL, M.D.

VINTON

A 25-year-old white female was seen in my office on June 22, 1965. At that time a gynecoil was installed and the patient was instructed in its use.

The patient was seen again on January 20, 1966, and a pelvic examination revealed the coil to be in place. A Papanicolaou smear was normal, and the patient had had no untoward effects. A pelvic examination August 8, 1966, was again normal, and the coil was found to be in place. A Pap smear on January 24, 1967, was interpreted as normal, and the coil again was found to be in position.

The six-month check on July 11, 1967, revealed a normal pelvis, and the gynecoil again found to be in place. On December 15, 1967, the patient was seen for amenorrhea, and her L.M.P. had occurred on September 28, 1967. The pelvic examination confirmed an intrauterine pregnancy, and the coil was not found. The patient said she was sure she had not lost the coil. A routine obstetrical work-up was performed on January 29, 1968, and the coil was found to be within the uterus. This was verified by x-ray only.



On July 20, 1968, the patient underwent a normal spontaneous vaginal delivery of a white male weighing 7 lbs. 15 ozs. and measuring 21½ inches in length. The 2-minute Apgar was 10. The placenta delivered intact, and the gynecoil was found under the serosa of the placenta.

The pathologist's report revealed that the tissue surrounding the gynecoil was entirely normal.

Pictured is six-month-old Duane and the gynecoil. He seems quite amused about the whole thing.

Diabetes Screening and Diagnosis

Explanations of the different blood sugar values obtained by various diabetes tests is featured in the new edition of a practical guide to screening and diagnosis of the disease. The new booklet, "Screening and Diagnosis in Diabetes Mellitus for the Physician," was prepared by Arthur Krosnick, M.D., coordinator of the New Jersey Department of Health's Diabetes Control Program. It provides authoritative tables and other data for easy conversion of results obtained with capillary or venous blood, plasma or whole blood, using Autoanalyzer, Symogi-Nelson or Folin-Wu methods of analysis. Also listed are diagnostic values in pregnancy and diagnostic values in children.

The revised brochure is available to individual physicians, and in quantity for hospitals, medical societies and other groups on request to: Diabetes Detection Program, 342 Madison Avenue, New York, N. Y. 10017.

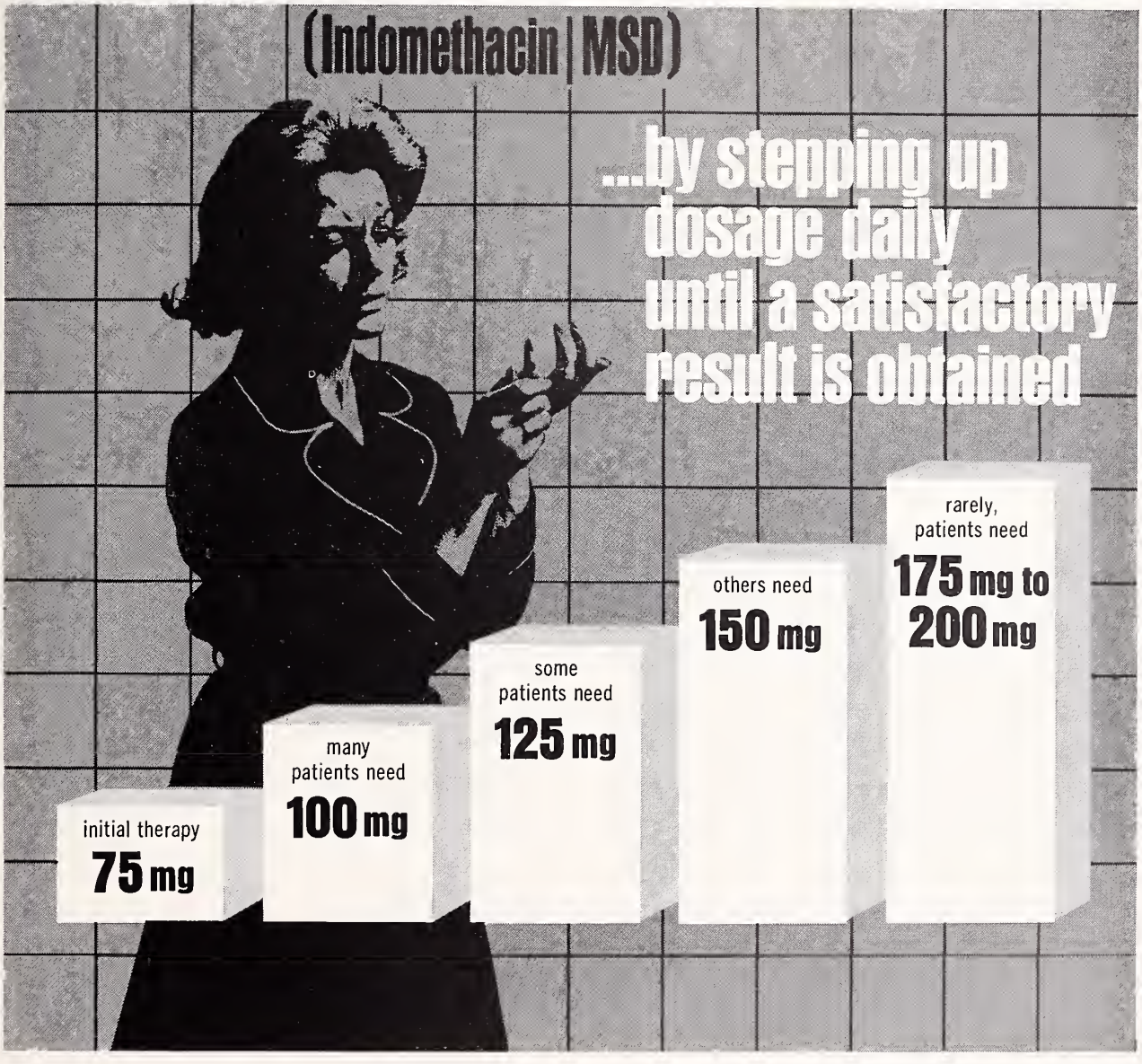
The two-hour post-glucose load blood sugar determination replaces the two-hour post-prandial blood sugar as the method of choice in screening in this latest version of the guide, with the latter listed as a slightly less accurate alternate method. A step-by-step outline of the three diagnostic tests (glucose tolerance, oral cortisone glucose tolerance and intravenous tolbutamide) notes the importance of avoiding birth control pills, thiazide diuretics, large doses of aspirin, nicotinic acid and other drugs which can affect the accuracy of the glucose tolerance test.

A companion publication by Dr. Krosnick, "Classification and Management in Diabetes Mellitus for the Physician," is also available on request from the Diabetes Detection Program.

In selected cases of rheumatoid arthritis with acute symptoms

Response to INDOCIN® is often improved...

(Indomethacin | MSD)



Many patients with acute rheumatoid arthritis or acute episodes of chronic rheumatoid arthritis can be controlled by increasing the dosage 25 mg *per day* (to the allowable maximum) until the episode subsides; the dosage should then be reduced gradually to maintenance levels. Few require the maximum (175–200 mg).

In the event the patient develops adverse effects, dosage should be reduced to tolerated levels for 2 or 3 days and then gradually increased by 25 mg every few days as tolerated. G.I. effects may be minimized by giving INDOCIN with food, antacids, or immediately after meals.

Now in two strengths
25 mg and 50 mg



Actual Size

INDOCIN®
(Indomethacin | MSD)

IMPORTANT NOTE: INDOCIN (Indomethacin, MSD) cannot be considered a simple analgesic and should not be used in conditions other than those recommended under *Indications*. The drug should not be prescribed for children because safe conditions for use have not been established.

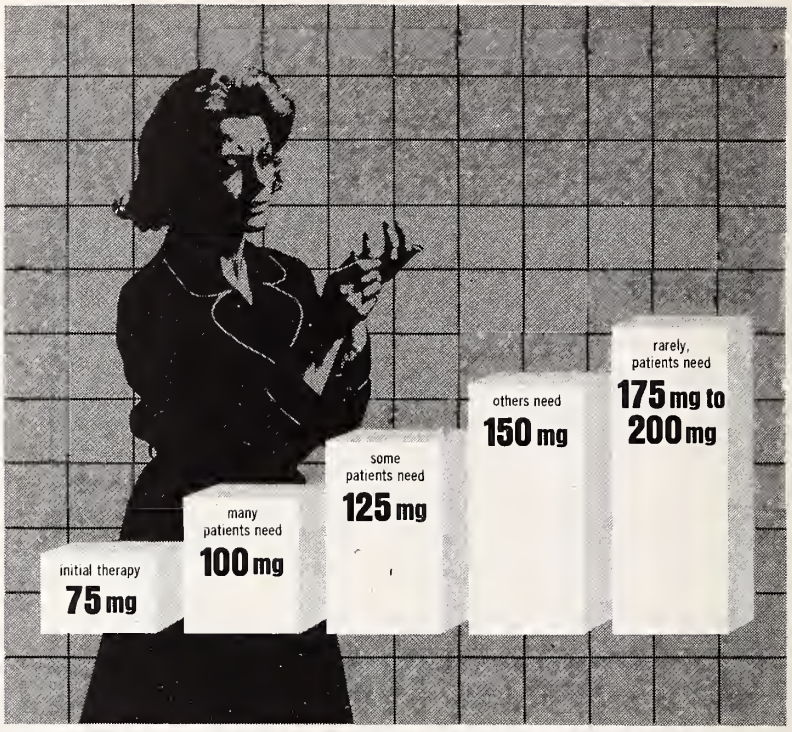
CONTRAINDICATED:

- in aspirin-sensitive asthmatics
- during pregnancy or lactation
- in children
- INDOCIN may mask the signs and symptoms of peptic ulcer and may cause ulceration or irritation of the G.I. tract. Therefore, do not give in active peptic ulcer, gastritis, regional enteritis, ulcerative colitis, and use with caution if there is a history of these disorders.

For additional prescribing information, please see following page.

In selected cases
of rheumatoid arthritis
with acute symptoms

Response to INDOCIN® (Indomethacin | MSD) is often improved by stepping up dosage daily until a satisfactory result is obtained



IMPORTANT NOTE: INDOCIN (Indomethacin, MSD) cannot be considered a simple analgesic and should not be used in conditions other than those recommended under Indications. The drug should not be prescribed for children because safe conditions for use have not been established.

Indications: For the symptomatic treatment of rheumatoid arthritis, rheumatoid (ankylosing) spondylitis, degenerative joint disease (osteoarthritis) of the hip, and gout.

Contraindications: INDOCIN may mask the signs and symptoms of peptic ulcer and may itself cause peptic ulceration or irritation of the G.I. tract. For these reasons it should not be given to patients with active peptic ulcer, gastritis, regional enteritis, or ulcerative colitis (use with caution if there is history of these disorders); aspirin-sensitive asthmatics. Safe use during pregnancy or during lactation has not been established. Should not be prescribed for children because safe conditions for use have not been established. In a few cases of severe juvenile rheumatoid arthritis receiving INDOCIN along with other drugs, severe reactions, including fatalities, have been reported.

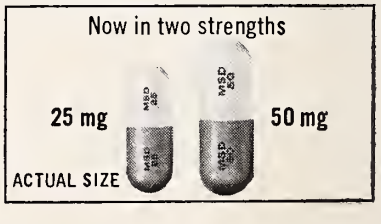
Warnings: Patients who experience dizziness, lightheadedness, or feelings of detachment on INDOCIN should be cautioned against operating motor vehicles or machinery, climbing ladders, etc. Use cautiously in patients with psychiatric disturbances, epilepsy, or parkinsonism since it may aggravate these conditions.

Precautions: Use cautiously in patients with a history of peptic ulcer, gastritis, regional ileitis, or ulcerative colitis because of its potential for causing G.I. bleeding. May cause single or multiple ulceration of the esophagus, stomach, duodenum, or small intestine, and, in a few Instances, severe bleeding and perforation with a few fatalities have been reported. May potentiate the ulcerogenic effect of steroids, salicylates, or phenylbutazone. Gastrointestinal bleeding with no obvious ulcer formation has also been noted; the drug should be discontinued if G.I. bleeding occurs. As a result of obvious or occult G.I. bleeding, some patients may manifest anemia, and for this reason periodic hemoglobin determinations are recommended. G.I. effects may be minimized by giving the drug with food or with antacids or immediately after meals. In common with other drugs that have anti-inflammatory, analgesic, and antipyretic properties, indomethacin may mask the signs and symptoms of infection; avoid undue delay in initiating appropriate treatment of the infection; use cautiously in patients with existing, but controlled, infections. As with any new drug, patients should be followed carefully to detect unusual manifestations of drug sensitivity.

Adverse Reactions: Starting therapy with low doses, with gradual increases when necessary, will minimize adverse reactions. *Central Nervous System:* Most commonly, headache (usually more severe in morning), dizziness, and lightheadedness; infrequently observed reactions include mental confusion, drowsiness, convulsions, coma, depression, and other psychic disturbances, such as depersonalization; CNS effects are often transient and frequently disappear with continued treatment or reduced dosage. The severity of these effects may occasionally require cessation of therapy. *Gastrointestinal:* Most commonly, nausea, anorexia, vomiting, epigastric distress, abdominal pain, and diarrhea; others that may develop are ulceration, single or multiple, of esophagus, stomach, duodenum, or small intestine, including perforation and hemorrhage with a few fatalities having been reported; G.I. bleeding without obvious ulcer formation, increased abdominal pain in patients with preexisting ulcerative colitis; less commonly, stomatitis; gastritis; bleeding from the sigmoid colon, occult in type or from a diverticulum, and perforation of preexisting sigmoid lesions (diverticulum, carcinoma); G.I. reactions not known definitely to be attributable to indomethacin include development of ulcerative colitis and of regional ileitis. *Hepatic:* Rarely, jaundice and hepatitis. *Cardiovascular-Renal:* Infrequently, edema, elevation of blood pressure, and hematuria. *Dermatologic-Hypersensitivity:* Infrequently, pruritus, urticaria, angioneurotic edema, angiitis, skin rashes, loss of hair, and acute respiratory distress including sudden dyspnea and asthma. *Hematologic:* Infrequently, leukopenia, purpura, and thrombocytopenia; rarely, agranulocytosis and bone marrow depression have been reported, but a definite relationship to the drug has not been established; since some patients may manifest anemia secondary to obvious or occult G.I. bleeding, periodic hemoglobin determinations are recommended. *Eye-Ear:* Infrequently, tinnitus, blurred vision, hearing disturbance, and orbital and periorbital pain. *Miscellaneous:* Rarely, vaginal bleeding, hyperglycemia, and glycosuria.

Supplied: Capsules containing 25 mg indomethacin each, in bottles of 100 and 1000; capsules containing 50 mg indomethacin each, in bottles of 100.

For more detailed information, consult your Merck Sharp & Dohme representative or see the package circular.



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WHERE TODAY'S THEORY IS TOMORROW'S THERAPY

STATE DEPARTMENT OF HEALTH



JAMES F. SPEERS, M.D., M.P.H., COMMISSIONER

Monthly Report for Month of April, 1969

Diseases	Apr. 1969	1969 To Date	1968 To Date	Most April Cases Reported From These Counties
Brucellosis	3	4	7	Dallas—1, Polk—2
Chickenpox	745	2623	3526	Black Hawk, Des Moines, Linn, Polk
Encephalitis, viral	2	4	1	Bremer, Polk
German Measles	563	1407	985	Black Hawk, Dubuque, Hamilton, Pottawattamie
Gonorrhea	331	1178	1207	Urban counties
Hepatitis, infectious	44	147	232	Appanoose, Polk
Hepatitis, serum	1	1	1	Lee
Histoplasmosis	2	7	13	Polk, Wapello
Impetigo	50	171	181	Black Hawk, Jones, Polk
Infectious mononucleosis	79	273	184	Johnson, Polk
Malaria, P. vivax, imported	1	4	4	Dubuque
Measles	71	207	49	Polk
Meningitis, aseptic	2	2	3	Dubuque, Johnson
Meningitis, H. influenza	1	6	4	Sac
Meningitis, meningococcal	2	11	5	Emmet, Polk
Meningitis, viral	1	1	2	Polk
Meningitis, type unspec.	1	6	6	Pottawattamie
Mumps	538	3039	8152	Floyd, Kossuth, Linn
Rabies in animals	6	32	49	Black Hawk, Boone, Chickasaw, Keokuk, Linn, Mahaska
Rheumatic fever	3	21	12	Black Hawk, Carroll, Muscatine
Salmonellosis	3	39	21	Polk, Scott, Winneshiek
Shigellosis	1	6	20	Polk
Streptococcal infect.	400	1987	2509	Jefferson, Johnson, Polk
Syphilis	57	237	237	Urban counties
Tuberculosis	10	46	33	Scattered
Whooping cough	1	5	38	Carroll

New Role for the Trained Non-Professional in Nutrition

A program designed to give increasing help in food and nutrition to Iowa's low-income families will be carried out in large part by trained non-professionals family food aides.

The program, started in January 1969 by Iowa State University's Cooperative Extension Service, is in its initial stage in 11 counties and two city areas of Iowa. Seventy family food aides are now on the job having completed intensive training in food as related to nutrition. Their service to families on a person-to-person basis or in group-teaching situations is developing rapidly. Welfare and health organizations, service organizations and churches are encouraged to refer needy families to county extension offices and to the aides.

Twelve extension home economists, located in areas where the program has started, are supervising the aides, and are continuing to provide training on a week-to-week conference basis. State guidance is being given by extension administrators and nutritionists, as well as by the Department of Food and Nutrition of the College of Home Economics at Ames.

The aides are women whose circumstances are comparable to those of the families they help. Selected on the basis of their interest in serving others, their willingness to be trained for their job, their desire to learn has exceeded the expectations of their supervising home economists.

Extension workers point out that it is not easy to visit families with whom you are not acquainted, to explain who you are and that you are interested in helping them, and that you want to establish a friendship with them. Yet this is the role that a non-professional can perform more adequately than her professional counterpart, because of her personal background.

The focus of the Family Food Aide Program is primarily food and its relationship to adequate nutrition. This does not exclude an awareness that many times a family's great need may stem from problems other than those of inadequate nourishment. When aides find such problems, they will refer them to other community and county agencies for attention.

(Continued on page 523)



Help the Needy!

This patient may appear to "have everything" but, like so many people getting along in years, she may well be in need—*medically*. Though there is no evidence of organic disease, she does have symptoms (fatigue, vague aches and pains, malaise) that may be indicative of—

a need to maintain anabolic balance... to counteract declining gonadal hormone secretion and forestall premature degenerative changes related to estrogen deficiency;

a need for mood elevation... to impart a gentle emotional uplift;

a need for nutritional supplementation... to compensate for the poor eating habits and subsequent dietary insufficiency of so many older people.

For these needs, consider MEDIATRIC for your next "needy" patient... medically.

MEDIATRIC provides specific agents to fulfill a need in the three areas:

1. **Gonadal steroids** [PREMARIN® (conjugated estrogens-equine), an orally active, natural estrogen, and methyltestosterone] for physiologic and metabolic benefits.

2. **Methamphetamine** to provide gentle elevation of mood.

3. **Nutritional supplements** specially selected to meet the requirements of the elderly individual.

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Steroid-nutritional compound

	Each MEDIATRIC® Tablet or Capsule contains:	Each 15 cc. (3 teaspoonfuls) of MEDIATRIC® Liquid contains:
Conjugated estrogens-equine (PREMARIN®)	0.25 mg.	0.25 mg.
Methyltestosterone	2.5 mg.	2.5 mg.
Methamphetamine HCl	1.0 mg.	1.0 mg.
Cyanocobalamin	2.5 mcg.	1.5 mcg.
Intrinsic factor concentrate	8.0 mg.	—
Thiamine HCl	—	5.0 mg.
Thiamine mononitrate	10.0 mg.	—
Riboflavin	5.0 mg.	—
Niacinamide	50.0 mg.	—
Pyridoxine HCl	3.0 mg.	—
Calcium pantothenate	20.0 mg.	—
Ferrous sulfate exsic.	30.0 mg.	—
Ascorbic acid	100.0 mg.	—
		Contains 15% alcohol† † Some Loss Unavoidable.

Contraindication: Carcinoma of the prostate, due to methyltestosterone component.

Warning: Some patients with pernicious anemia may not respond to treatment with the Tablets or Capsules, nor is cessation of response predictable. Periodic examinations and laboratory studies of pernicious anemia patients are essential and recommended.

Side Effects: In addition to withdrawal bleeding, breast tenderness or hirsutism may occur.

Suggested Dosages: *Male and female*—1 Tablet or Capsule, or 3 teaspoonfuls Liquid, daily or as required.

In the female: To avoid continuous stimulation of breast and uterus, cyclic therapy is recommended (3 week regimen with 1 week rest period—Withdrawal bleeding may occur during this 1 week rest period).
In the male: A careful check should be made on the status of the prostate gland when therapy is given for protracted intervals.

Supplied: No. 752—MEDIATRIC Tablets, in bottles of 100 and 1,000.
No. 252—MEDIATRIC Capsules, in bottles of 30, 100, and 1,000.
No. 910—MEDIATRIC Liquid, in bottles of 16 fluidounces.

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University Hospitals DRUG LETTER

Dopamine in Hypotension and Shock

A. L. MARK, M.D.

Dopamine may be useful for the treatment of selected patients with hypotension and shock. Interest in the agent developed because of its exciting pharmacologic properties. The purpose of this report is to review the cardiovascular actions of dopamine and the experience with it in patients with clinical shock.

Dopamine is the precursor of norepinephrine, the sympathetic adrenergic neurotransmitter. No physiologic role for dopamine in the cardiovascular system, apart from being the precursor of norepinephrine, has been demonstrated. Its admin-norepinephrine, has been demonstrated. Administration of dopamine, however, produces several cardiovascular effects. Some resemble actions of norepinephrine; others are distinct.

The metabolism of administered dopamine was studied in human subjects by means of radioactive-labelled dopamine.[4] Approximately 75 per cent of the dopamine was rapidly inactivated and metabolized by O-methylation and deamination. The remaining 25 per cent apparently entered sympathetic nerve endings and then was converted to norepinephrine, which in turn was released and metabolized. In this regard it should be mentioned that available studies suggest that the pharmacologic actions of dopamine are largely direct effects and are not due to a conversion to norepinephrine and a subsequent release of norepinephrine.

The cardiac effects of dopamine resemble those of norepinephrine and isoproterenol. These agents tend to increase cardiac output, stroke volume and heart rate by stimulating beta adrenergic receptors in the heart.[8]

The vascular responses to dopamine are not so simply stated. In skin and skeletal muscle it stimulates both alpha (vasoconstrictor) receptors and beta (vasodilator) receptors. The former predominate, so that the net effect is mild vasoconstriction.[1, 10, 11]

Dopamine also stimulates alpha (vasoconstrictor) receptors in the renal and mesenteric vascular beds, but there the constriction is masked by a dilator action.[3, 10, 11] Consequently this drug increases renal and mesenteric blood flow. In contrast, norepinephrine usually decreases blood flow to these areas. This dilator action of dopamine cannot be demonstrated in skin and skeletal muscle. In addition, it is not mediated through stimulation of recognized adrenergic, cholinergic or histaminergic receptors. It is not surprising that these observations led to the suggestion that there may be specific dopamine receptors in kidney and mesentery. This possibility awaits the demonstration of a specific dopamine antagonist. Recently Yeh, McNay and Goldberg have reported that haloperidol, a tranquilizer, is a specific, competitive dopamine antagonist, but this action is fleeting and limited to a narrow dose range.[13]

Sodium excretion increases in normal subjects and in patients with congestive heart failure during dopamine infusion.[9] Isoproterenol administration is associated with smaller increases, and norepinephrine usually decreases sodium excretion. The increases in sodium excretion with dopamine have been attributed to increases in renal blood flow and glomerular filtration rate. Other investigators believe the drug also acts on the renal tubule.

Several investigators have demonstrated that dopamine increases coronary blood flow.[2] It is not known, however, whether the increases are due to a primary action on the vessels, or are secondary to the myocardial effects of the drug. This question may have clinical importance.

In choosing a drug with which to treat the hypotensive patient, the physician considers its effects on the heart and resistance vessels (arterioles). He should also consider its effects on the tone of capacitance vessels (veins). In the experiments which we reported, dopamine caused venous constriction in skin and skeletal muscle in dogs.[7] It also caused constriction of mesenteric veins, in contrast to its dilator action on mesenteric resistance vessels. The venoconstriction was the result of alpha-receptor stimulation. The increases in venous tone with dopamine would tend to increase central venous pressure, or right-heart filling pressure, by decreasing peripheral venous capacity. Central venous pressure depends not only on venous capacity, but also on the volume of blood within the veins. In this regard it is possible that prolonged infusions of dopamine theoretically could decrease circulating blood volume and central venous pressure by increasing capillary filtration in the mesentery. The possibility that isoproterenol and norepinephrine may decrease blood volume by increasing capillary filtration has also been suggested.

CLINICAL EXPERIENCE WITH DOPAMINE

Experience with dopamine in patients with hypotension and shock thus far has been limited, but is

Dr. Mark is a research fellow and instructor in internal medicine at the U. of I. College of Medicine. This article appeared initially in the February, 1969, issue of DRUG LETTER, a monthly intramural publication of University Hospitals, Iowa City. It is reprinted here at the suggestion of the Clinical Pharmacology Committee at the University, and with the permission of the author.

increasing.[5, 6, 12] Approximately one out of every four patients failed to respond to this drug. Most patients demonstrated increases in cardiac output and slight to moderate increases in arterial pressure. The increases in arterial pressure were due largely to increases in cardiac output rather than to peripheral vasoconstriction. Urine flow generally rose, but measurements of renal blood flow in these patients are lacking.

Currently the starting dose is 0.5 to 2.0 μg. per Kg. per minute, given intravenously. The dose may be increased stepwise to 18.0 μg. per Kg. per minute if an adequate response is not obtained at lower doses. Toxic effects from dopamine infusion have not been reported. Like most sympathomimetic amines, dopamine is a cardiac stimulant and can produce adverse side effects in some patients because of this action. A few patients with coronary disease or shock have developed transient arrhythmias or angina pectoris while receiving the drug, but these phenomena have occurred mostly at higher dosages and have disappeared shortly after the drug was stopped. At present, dopamine appears to be as safe as other sympathomimetic amines.

The place of dopamine in the treatment of shock is uncertain. It is still an investigational drug. Comparison of its effectiveness with that of other drugs such as norepinephrine and isoproterenol is limited. But studies in experimental animals, in normal human subjects, and in some patients with shock permit preliminary comparisons. Dopamine causes less vasoconstriction than norepinephrine, but its administration is associated with greater increases in cardiac output and renal and mesenteric blood flow. On the other hand, it produces less vasodilatation than isoproterenol, but a more favorable effect on arterial pressure, venous tone and distribution of blood flow. The available studies suggest that some patients respond best to dopamine, others to norepinephrine and others to isoproterenol.

Finally, it might be mentioned that combined use of dopamine and phentolamine (an alpha-receptor blocking agent) might have a better effect on nutritional blood flow (capillary perfusion) than dopamine alone, without preventing the increases in cardiac output and renal blood flow that are seen with dopamine alone.

SUMMARY AND CONCLUSIONS

Administration of dopamine increases cardiac output and renal and mesenteric blood flow. The vasodilatation in the kidney and the mesentery does not result from beta-receptor stimulation and may be mediated by specific dopamine receptors. These and other pharmacologic properties have suggested that this drug might be useful in patients with hypotension and shock. Limited clinical studies supported this suggestion, and this agent is now being used as an investigational drug to treat selected patients with shock. It is likely that dopamine will receive wider use in the near future. The physician who treats these patients should follow reports of its use.

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New Role for the Trained Non-Professional in Nutrition

(Continued from page 519)

A number of families being contacted are those receiving food stamps. The endeavor in such instances is to give help in food selection, meal-planning, food preparation, storage and sanitation in order that this public food assistance may be well used by families.

The Family Food Aide Program is underway and extension home economists are in charge in the following counties: **Linn, Jones and Benton,** Henrietta Van Maanen (12 Aides); **West Pottawattamie,** Enid Wortman (4 Aides); **Woodbury,** Lettie Thrift (8 Aides); **Dubuque,** Marilyn Olson (4 Aides); **Adair,** Judith Carlson (4 Aides); **Union,** Dorothy Bartleson (5 Aides); **Webster,** Verla Ulish (4 Aides); **Hamilton,** Mae Belle Godown (4 Aides); **Palo Alto and Kossuth,** Margaret Pratt (7 Aides); **Cerro Gordo,** Phyllis Seymour (8 Aides).

Cities: **Des Moines,** Beatrice Brock (5 Aides); **Waterloo,** Marjorie Warner (5 Aides).



A high index of suspicion... E. coli

How high is the "index of suspicion" for *E. coli* in urinary tract infections?

Recently it has been estimated that about 86 per cent of positive cultures in first attacks of urinary tract infection are *E. coli.*[1] It has also been noted that "The coliform group, especially *E. coli*, accounts for approximately 90 per cent of initial infections...."[2]

Consider wide-spectrum Gantanol® (sulfamethoxazole) for its high "index of confidence"—its proven effectiveness against *E. coli* and other sensitive gram-negative and gram-positive organisms. Therapeutic levels of Gantanol in blood and urine are achieved within 2 hours after a 2-Gm starting dose, with ready diffusion into interstitial fluids. Responsive infections generally clear within 5 to 7 days, with relief of symptoms usually seen within 24-48 hours.

Gantanol also earns its high "index of confidence" because Gantanol therapy is relatively free from complications, including the problem of bacterial resistance or superinfection.

Convenient, economical dosage schedule: *b.i.d.*

References: 1. Vernier, R. L., in Patient Care Feature: *Patient Care, 1*:20 (Feb.) 1967. **2.** Beeson, P. B.: "The Infectious Diseases," in Beeson, P. B., and McDermott, W. (eds.): *Cecil-Loeb Textbook of Medicine,* ed. 12, Philadelphia, W. B. Saunders Company, 1967, p. 230.

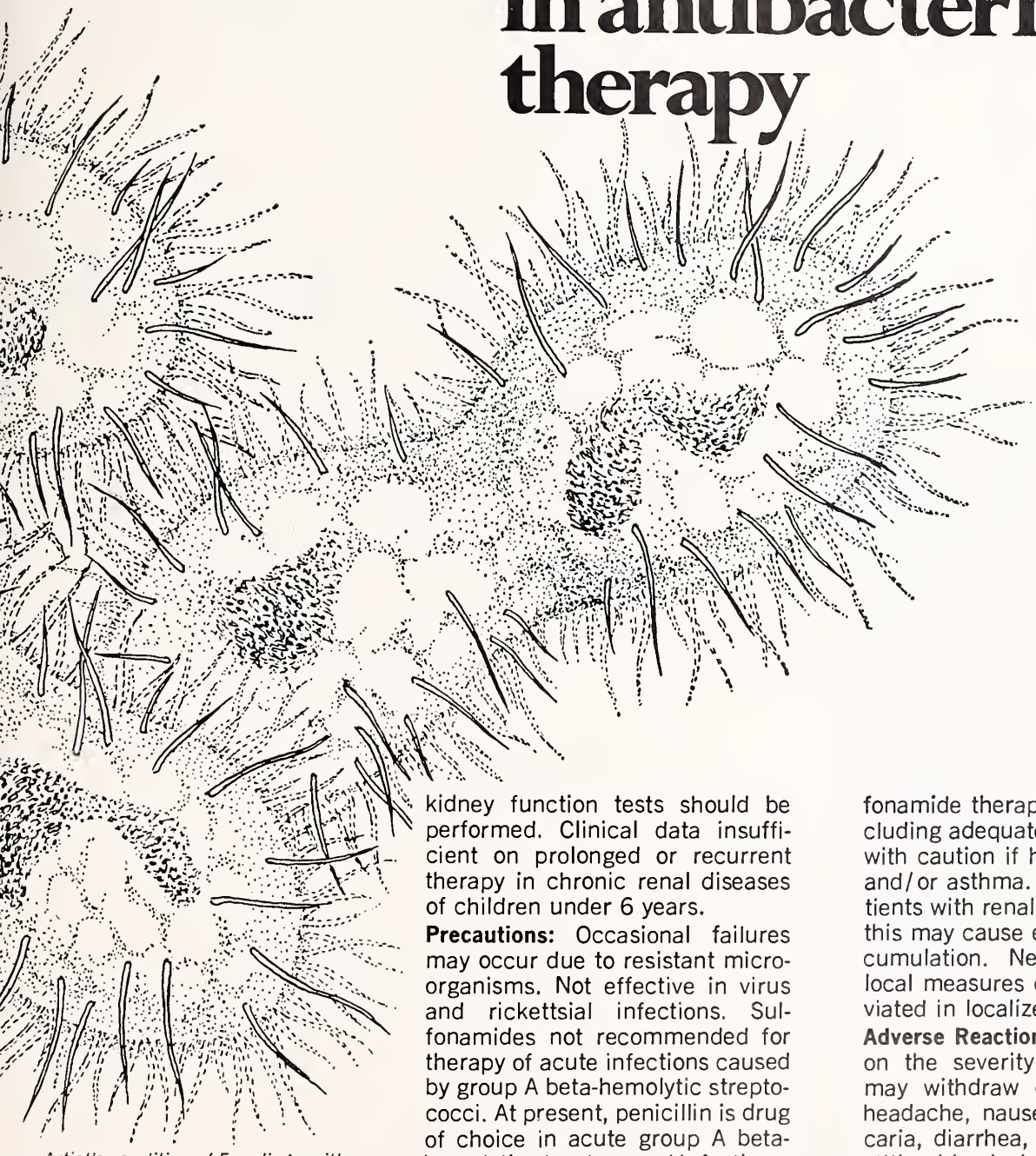
Before prescribing, please consult complete product information, a summary of which follows:

Indications: Acute and chronic urinary tract, respiratory and soft tissue infections due to susceptible microorganisms; prophylactically following diagnostic instrumental procedures on genitourinary tract.

Contraindicated in sulfonamide-sensitive patients, pregnant females at term, premature infants, or newborn infants during first 3 months of life.

Warnings: Use only after critical appraisal in patients with liver or renal damage, urinary obstruction or blood dyscrasias. Deaths reported from hypersensitivity reactions, Stevens-Johnson syndrome, agranulocytosis, aplastic anemia and other blood dyscrasias. In closely intermittent or prolonged therapy, blood counts and liver and

For a high index of confidence... Gantanol® (sulfamethoxazole) in antibacterial therapy



Artist's rendition of E. coli. As with most strains of E. coli, these have flagella and are motile.

kidney function tests should be performed. Clinical data insufficient on prolonged or recurrent therapy in chronic renal diseases of children under 6 years.

Precautions: Occasional failures may occur due to resistant microorganisms. Not effective in virus and rickettsial infections. Sulfonamides not recommended for therapy of acute infections caused by group A beta-hemolytic streptococci. At present, penicillin is drug of choice in acute group A beta-hemolytic streptococcal infections; although Gantanol has produced favorable bacteriologic conversion rates in this infection, data insufficient on long-term follow-up studies as to its effect on sequelae of rheumatic fever or acute glomerulonephritis. If other treatment cannot be used and Gantanol is employed in such infections, *important that therapy be continued in usual recommended dosage for at least 10 days*. Observe usual sulfonamide therapy precautions, including adequate fluid intake. Use with caution if history of allergies and/or asthma. Follow closely patients with renal impairment since this may cause excessive drug accumulation. Need for indicated local measures or surgery not obviated in localized infections.

Adverse Reactions: Depending upon the severity of the reaction, may withdraw drug in event of headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, Stevens-Johnson syndrome, skin rash, injection of the conjunctiva and sclera, petechiae, purpura, hematuria and crystalluria.

ROCHE

Roche
LABORATORIES

Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

WHAT'S SO WEAK ABOUT THE WEAKER SEX?

OFTEN... HER LOWER G. I. TRACT



Psycho-abdominal Distress: Frequently Female

Women aged 15 to 45 appear to be more prone than men to bloating, cramping pain of stress-related intestinal disturbances such as irritable or spastic colon.[1,2]

Frequently Recurrent

In the experience of many physicians, women are more likely to reappear time after time with repeated complaints of lower G.I. distress.

Requiring Definitive Therapy

Often needed is therapy adequate to control both the somatic and the emotional components of psycho-abdominal complaints.

Definitive Dual Therapy

'Milpath' contains a proven synthetic anticholinergic useful for relieving hypermotility, spasm, and hypersecretion of the gastrointestinal tract.

In addition, 'Milpath' provides a time-tested tranquilizer for mild but effective anti-anxiety action.

With Flexible Dosage

- 'Milpath'-400 (meprobamate 400 mg. + tridihexethyl chloride 25 mg.) Usual adult dose: 1 tablet *t.i.d.* and 2 at bedtime.
- **When less tranquilization is required: 'Milpath'-200 (meprobamate 200 mg. + tridihexethyl chloride 25 mg.)**

Wallace Pharmaceuticals/ Cranbury, N. J. 08512

gently but firmly

MILPATH®

(meprobamate + tridihexethyl chloride)

relaxes smooth muscle and psyche

Please see the following page for brief summary of prescribing information.

Gently but firmly MILPATH®

(meprobamate + tridihexethyl chloride)

Relaxes smooth muscle and psyche



Usual Adult Dosage

One 'Milpath'-400 tablet, three times a day at mealtimes, and two at bedtime. For greater anticholinergic effect, two 'Milpath'-200 tablets, three times a day at mealtimes and two at bedtime. Doses of meprobamate above 2400 mg. daily not recommended.

Indications

Useful in organic and functional disorders with hypersecretion and hypermotility of G.I. tract, especially when accompanied by anxiety, neurosis, or tension states. Should be used as an adjunct to all other therapeutic measures.

Contraindications

Tridihexethyl chloride: Urinary bladder-neck obstructions, e.g., prostatic obstruction due to hypertrophy; pyloric obstructions because of reduced motility and tonus: organic cardiospasm (megaesophagus); glaucoma; possibly in stenosing gastric or duodenal ulcers with significant gastric retention.

Meprobamate: Previous allergic or idiosyncratic reactions to meprobamate.

Precautions

Tridihexethyl chloride: Use cautiously in elderly males (possible prostatic hypertrophy).

Meprobamate: Carefully supervise dose and amounts prescribed. Consider possible dependence or habituation (reported occasionally after excessive use), particularly in severe psychoneurotics, alcoholics, ex-addicts. Withdraw gradually (one or two weeks) after excessive dosage for weeks or months to avoid recurrence of pre-existing symptoms (e.g., anxiety, anorexia, insomnia) or withdrawal reactions (e.g., vomiting, ataxia, tremors, muscle twitching; rarely, epileptiform seizures, more likely in those with CNS damage or latent convulsive disorders). If drowsiness or visual disturbance occurs, reduce dose and advise against activity requiring alertness (driving, machinery operation). Effects of excess alcohol may be increased. Grand mal seizures possible in persons with both petit and grand mal. Prescribe cautiously in small amounts to patients with suicidal tendencies. Prescribe with caution to patients with known sensitivity to compounds of similar chemical structure, e.g., carisoprodol.

Side Effects

The following side effects of components may occur with 'Milpath'.

Tridihexethyl chloride: Severe effects rare on recommended dosage. Anticholinergic effects: dry mouth (fairly frequent at oral doses of 100 mg.), constipation or "bloated" feeling. Possible: tachycardia, dilation of pupils, increased ocular tension, weakness, nausea, vomiting, headache, drowsiness, urinary hesitancy or retention, dizziness.

Meprobamate: Drowsiness, sometimes with ataxia, usually controlled by decreasing dosage, occasionally with aid of central stimulants (e.g., amphetamine). Rarely, allergic or idiosyncratic reactions (usually after one to four doses); in mild form: itchy, urticarial or erythematous, maculopapular rash, generalized or confined to groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever, transient leukopenia, and one fatal bullous dermatitis (after meprobamate and prednisolone) reported. More severe, very rare hypersensitivity: fever, chills, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (one fatal), anuria, anaphylaxis, stomatitis and proctitis. Treat symptomatically (e.g., epinephrine, antihistamines, possibly hydrocortisone); stop and do not restart the drug. Isolated agranulocytosis, thrombocytopenic purpura, one fatal aplastic anemia reported, but only in presence of known toxic drugs, porphyric symptoms reported but relationship not established. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation reported by one observer. Fixed drug eruption with meprobamate and cross reaction to carisoprodol reported.

Suicidal attempts may produce drowsiness, lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse, and death. Excessive dosage has led rapidly to sleep, then reduction of vital signs to basal levels. Empty stomach, and if respiration becomes very shallow and slow, cautiously give CNS stimulants (e.g., caffeine, pentylenetetrazol, amphetamine); also pressor amines if indicated.

Supplied

In two strengths:

'Milpath'-400: Yellow, scored tablets.

'Milpath'-200: Yellow, coated tablets.

Before prescribing, consult package circular.

References

1. Harrison, T. R., et al.: Principles of Internal Medicine, Fifth Edition, New York, The Blakiston Division, McGraw-Hill Book Company, 1966, p. 1019. 2. Bockus, H. L.: Gastroenterology, Second Edition, Philadelphia & London, W. B. Saunders Company, 1964, Vol. II, p. 729 et seq.

(1928A01J)

THE JOURNAL *Book Shelf*



BOOK REVIEWS

DRUG DEPENDENCE, A GUIDE FOR PHYSICIANS (Chicago, American Medical Association, 1969. $1.00).

This little paperback issued by the American Medical Association is a presentation based on conferences and statements issued by its Committee on Alcoholism and Drugs. These have been organized to embrace sections on etiology, treatment, social control, and research. The presentation is brief, informative and practical. It is also rational and free of those special passions which are too often generated when doctors discuss youth, drugs and society. The "marihuana problem" is seen in perspective without diminishing its significance. The need for research from multiple approaches is properly stressed.

All physicians would do well to avail themselves of this timely publication.—*Sidney L. Sands,* M.D.

PEDIATRIC HEAD INJURIES, by *John Mealey, Jr.,* M.D. (Springfield, Illinois, Charles C Thomas, Publisher, 1968. $10.50).

This monograph is derived from clinical data on 300 pediatric head injuries treated by the author and his colleagues at the Indiana University Medical Center from 1960 to 1967.

The usual categories of head injuries are detailed, viz. the closed head injuries, skull fractures, and related conditions, extradural hemorrhage, intradural hemorrhage, and perinatal injuries, along with informative sections on mechanisms and pathology, and diagnostic procedures.

The importance of echoencephalography and cerebral angiography in diagnosis is stressed and documented. The modern skepticism regarding past conventional methods (craniotomy with removal of membrane) for the treatment of subdural hematoma is aired, and the author's discussion of this matter is one of the highlights of the text, in your reviewer's estimation.

The book is well illustrated, and amply documented with pertinent case histories. It supplies a critical analysis of a busy clinical experience, and should be welcomed by the profession.—*John T. Bakody,* M.D.

SURGICAL PATHOLOGY, FOURTH EDITION, by *Lauren V. Ackerman,* M.D., in collaboration with *Harvey R. Butcher, Jr.,* M.D. (St. Louis, C. V Mosby Company, 1968. $27.50).

The fourth edition of Ackerman's SURGICAL PATHOLOGY, has carried on the tradition of the previous editions, which include lucid presentation, excellent format and illustrations, and a very fluent style of writing.

This edition has a chapter on ultrastructure and surgical pathology showing the application of electron microscopy. There is also an excellent section on Skin Pathology, including tumors of the skin and pigmented tumors, nevi, and melanomas, beautifully illustrated and discussed.

An extensive section on the female reproductive system, written in collaboration with Dr. Frederick T. Kraus, who has recently published a text book of gynecologic pathology, is up-to-the-minute, including the pathology of anovulatory-drug therapy.

Other noteworthy sections include discussions of the parathyroid and thyroid glands, and a very easily readable discussion of the interpretation of renal-biopsy material.

As far as this reviewer is concerned the most outstanding chapters are those that incorporate Dr. Ackerman's particular hobbies, bone and joint pathology and soft-tissue pathology. These are outstanding.

Separate chapters on blood vessel pathology, including the surgical problems and illustrations, an extensive chapter on central nervous system pathology, and a chapter on ocular and ocular-adnexal pathology were written by associates of Dr. Ackerman who are nationally known experts in the field.

This book continues to be the only definitive surgical pathology in one volume, and it should be required reading for all pathology residents.

The very extensive, up-to-date bibliography at the end of each chapter makes this book a ready reference for general usage.—*J. W. Green, Jr.,* M.D.

BOOKS RECEIVED

PEDIATRIC HEAD INJURIES, by *John Mealey, Jr.,* M.D. (Springfield, Illinois, Charles C Thomas, Publisher, 1968. $10.50).

COLLATERAL CIRCULATION IN CLINICAL SURGERY, ed. by *D. E. Strandness, Jr.,* M.D. (Philadelphia, W. B. Saunders Company, 1969. $20.00).

SELECTED PAPERS OF EDMUND BERGLER, M.D., 1933-1961. (New York, Grune & Stratton, Inc., 1969. $9.75).

DIAGNOSIS AND MANAGEMENT OF PAIN SYNDROMES, SECOND EDITION, by *Bernard E. Finneson,* M.D., F.A.C.S. (Philadelphia, W. B. Saunders Company, 1969. $12.50).

MEDICAL INTERVIEWING, by *Robert E. Froelich,* M.D., and *F. Marian Bishop,* Ph.D., M.S.P.H. (St. Louis, C. V. Mosby Company, 1969. $4.75).

LUNG CANCER, ed. by *William L. Watson,* M.D. (St. Louis, C. V. Mosby Company, 1968. $29.50).

THE EVOLUTION OF PREVENTIVE MEDICINE IN THE UNITED STATES ARMY, 1607-1939, by *Stanhope Bayne-Jones,* M.D. (Washington, D. C., Superintendent of Documents, Government Printing Office, 1968. $2.50).

INTRODUCTION TO MEDICAL SCIENCE, by *Clara Gene Young* and *James D. Barger,* M.D., F.A.C.P. (St. Louis, C. V. Mosby Company, 1969. $7.95).

MORRIS FISHBEIN, M.D., AN AUTOBIOGRAPHY. (Garden City, New York, Doubleday & Company, Inc., 1969. $10.00).

For elderly patients in need of a mild tranquilizer consider **Tybatran**®

brand of tybamate

(When you consult the Prescribing Information you may agree it makes good sense)



.ESCRIBING INFORMATION

Indications: Tybatran (tybamate) has afforded sympto-
itic improvement in a variety of psychoneurotic disor-
rs, especially in the treatment of the anxiety and tension
mponents of psychoneuroses. Anxiety states manifested
matically have responded to Tybatran (tybamate).

Tybatran (tybamate) has been useful in the control of
itation in the aged and in the alleviation of some of the
lverse emotional accompaniments of senility.

Tybatran (tybamate) has been used with benefit in the
eatment of depressive symptoms associated with anxiety
d other symptoms of psychoneuroses. However, it is not
dicated for primary treatment of depressive states. It is
t an antipsychotic agent, although it has been used as
ljunctive therapy in some psychotic patients.

Dosage: One 350 mg. capsule, 3 times daily and two at
edtime is suggested as the adult starting dose. Adjust to
it individual requirements. Daily doses above 3000 mg.
e not recommended.

Contraindications: Known hypersensitivity to tybamate.
nce no studies have been done with this drug in human
regnancy, it should not be used in pregnancy unless the
otential benefit outweighs the risk.

Warnings: Administer cautiously to patients receiving
henothiazines or other CNS depressants or having his-
ry of convulsive seizures (See Adverse Reactions). Con-
der possibility of additive actions with alcohol or other
sychotropic agents, particularly phenothiazines or MAO
hibitors.

Precautions: Avoid abrupt withdrawal after prolonged
se, although withdrawal symptoms have not been reported
o date. Exercise caution in addiction-prone individuals. If
ymptoms of hypersensitivity occur, discontinue at once
nd initiate appropriate symptomatic treatment. Avoid
ctivities requiring optimal mental alertness if drowsiness
r vertigo are present. As with any new drug, use cautiously
n patients with history of drug allergies, blood dyscrasias,
nd hepatic or renal disease; periodic measurements of
epatic, hematopoietic and renal function should accom-
any prolonged and/or high doses.

Adverse Reactions: Most frequent reactions, rarely re-
quiring discontinuation of tybamate, include drowsiness,
dizziness, nausea, insomnia, and euphoria. There have been
a few reports of skin rash, urticaria, and pruritus. Rare side
effects include hyperactivity, fidgetiness, flushing, and tach-
ycardia, suggesting excessive stimulation; also ataxia, un-
steadiness, confusion, feeling of unreality, "panic reaction,"
fatigue, headache, paresthesias, vertigo, gastrointestinal
disturbances, glossitis, and dry mouth. Grand mal or petit
mal seizures have been reported in a few hospitalized psy-
chotic patients receiving tybamate (up to 6000 mg. daily)
together with phenothiazines and other psychotropic
agents, but not with tybamate alone. Consider the possibil-
ity of rare, serious adverse reactions such as may occur
with the related drug, meprobamate. If excessive amounts
are ingested, gastric lavage and symptomatic therapy, in-
cluding central stimulants as necessary, are recommended.
Before prescribing, consult package circular.

Supply: Tybatran (tybamate) is available in green, sealed
capsules of three strengths: 350 mg., 250 mg., and 125 mg.
Each strength is supplied in bottles of 100 and 500.

A. H. Robins Company, Richmond, Va. 23220

A·H·ROBINS

Diabetes Detection Workshop to Precede AMA in New York City

The Disease Detection Information Bureau (DDib) will sponsor a workshop on diabetes detection at the New York Hilton, New York City, on Saturday, July 12, 1969, the day before the opening session of the AMA's annual meeting. Theme of the Workshop is to be "Practical Planning for Community Screening Programs," and attendance is open to both professional and lay persons. There will be no registration fee, and all registrants will be guests of DDib at luncheon.

Pre-registration is required. Address DDib at 3553 West Peterson Avenue, Chicago 60645.

MORNING PROGRAM

"The Need for Community Screening Programs," Dr. Glen W. McDonald, chief, Diabetes and Arthritis Control Program, Department of Health, Education and Welfare, Arlington, Virginia.

"How to Obtain Community Involvement"—Orville L. Sauder, Peoria County Health Department, Illinois.

"How to Obtain Manpower"—Mrs. A. L. Adler, executive secretary, Diabetes Lay Society of Greater Kansas City.

"How and Where to Screen"—Dr. Arthur Krosnick, coordinator, Diabetes, Endocrine and Metabolic Diseases, New Jersey State Department of Health, Trenton.

AFTERNOON PROGRAM

"How to Inform the Public and the Profession"—Mrs. Rosemary Whitmore, Pennsylvania Department of Health, Harrisburg.

"How to Obtain and Utilize Meaningful Statistics"—Bill Burk, head, Field Service Section, Oklahoma State Department of Health, Oklahoma City.

"How to Keep a Program Going"—Miss Marilynn Klapper, chronic disease investigator, Erie County Health Department, Buffalo, New York.

Surgical Group Names Three U. of I. Faculty Members

Three faculty members at the University of Iowa College of Medicine have been honored by the American Surgical Association, a select organization with a membership limited to 300 specialists from the United States and seven foreign nations.

Dr. Robert T. Tidrick, professor and head of surgery, was elected second vice-president of the group. Dr. Rubin H. Flocks, professor and head of urology, was named to senior membership, and Dr. Sidney E. Ziffren, professor and head of the division of trauma and reconstructive surgery, was named to membership.

Objectives of the Association are the cultivation and improvement of the science and art of surgery and the elevation of standards of the medical profession. The Association was founded in 1878 and one of its first members was the late Dr. Washington Freeman Peck of Davenport, the first dean of the U. of I. College of Medicine.

THE DOCTOR'S BUSINESS



Collections—An Important Area of Practice Management

LARRY E. LEAVERTON

Des Moines

With the trend to third-party payments and the so-called affluence of our society, one would think that collections would be no problem in medical offices. However, we still see some offices that are collecting only 90 to 95 per cent of accounts payable, and the persistence of the patient's concept that the doctor's bill is the last to be paid. It would be ideal if everyone paid his account at the time of service, or upon receiving the first statement, but such is not the case.

What is a reasonable collection percentage? Your collection percentage, or collection ratio is a good measure of the efficiency and effectiveness of your collection program. The percentage is determined by dividing your cash receipts by your total charges to patients. The average established office with a well managed and effective program should have an overall collection percentage of 96 to 98 per cent.

Does a high collection percentage mean that physicians are too commercial or business minded? No, we think not. On the contrary, patients expect their doctor to use good business practices. We seldom see an Iowa physician who presses a patient for payment where extreme hardship or difficulties are present. When these situations arise, most doctors reduce or write-off a balance.

What leads to a good collection percentage?

1. Good collection procedures begin with the patient's first visit to the office. It is important for the medical assistant to get full and complete information on the patient, including the correct spelling of his name, his correct address, the name of the financially responsible individual, if other than the patient, the place of the responsible person's employment, and the name of the insurance carrier and the policy numbers if applicable.

2. The fees charged should be fair, and justifiable and should be explained when necessary.

3. Payments at the time of service should be encouraged. With today's high billing and clerical costs, this is important. Charge slips or routing slips are routine in an office with an efficient collection program. To collect an account or explain a fee at the time of service, the charge slip must be at the reception desk when the patient returns there.

4. Monthly itemized statements must be sent to all patients.

5. Prepare insurance and other third-party payment forms cheerfully and promptly. Patients frequently blame a physician because their insurance policies do not cover the entire fee, or the physician will blame the insurance company for not paying a larger amount on a claim. The facts may be that the patient or the patient's employer bought a low-cost policy and gets low-pay benefits. It must be explained that the fee for services does not necessarily coincide with the amount allowed by the insurance company, and that the patient will be billed for the difference. The contract is between the patient and the insurance company, not between the doctor and the insurance company. In cases where insurance, Medicare, Medicaid or other compensation may be involved, eligibility and/or coverage should be determined at the patient's first visit. If a claim is to be filed, there must be an understanding as to what forms are necessary.

6. Train your personnel to handle collections and credit arrangements effectively. The two extremes are the over-zealous girl who is too hard-boiled and irritates your patients, and the shy timid girl who is not firm enough in making credit arrangements.

7. Set up a good, sound, ethical collection policy, and follow it faithfully. The doctor's cooperation is necessary. If the assistant is capable and well trained, all discussions of financial arrangements should be referred to her. If a patient specifically requests to speak to the doctor about finances or seeks an explanation of fees from the physician himself, he should be given that courtesy, but the doctor should be careful to back up his medical assistants on office credit policies. A good or bad

Mr. Leaverton has been associated with Professional Management Midwest since 1949. He is a partner in the firm, and is director of its Research and Development Department.

credit rating should not govern the quality of medical care.

8. Some patients are under pressure to meet too many bills each month, and need help with their personal budgeting. If you get no response to statements, you must find out why. We recommend printed notices calling attention to the delinquency and encouraging the patient to make arrangements for payment. Some offices use personal letters or notes. The advantage of the printed form is that it saves time, and it is effective and systematic. Whatever you use, be certain the forms or letters are dignified and professional, and be sure they are used.

Follow-up the accounts without delay. Unlike wine, medical accounts do not improve with age. It has been estimated that in various stages of delinquency, medical accounts have the following values:

Age	Value
Current	1.00
2 months	.89
6 months	.69
12 months	.45
24 months	.23
36 months	.15
48 months	.10
60 months	.00

The notices should not attempt to be humorous or overly apologetic. Establish a definite timetable for the delinquent-account notices, and follow it.

9. If you get no response from statements or follow-up by mail, get in touch with the delinquent patient by phone. Telephone contacts call for experience, as a badly handled telephone call can do more harm than good. The caller should be sympathetic and understanding. The patient may have a logical complaint about the services received, or a good reason why payment has not been sent. Most medical delinquencies can be traced to a credit squeeze, and payment of the medical bill has been postponed in favor of others. When you make credit arrangements by phone, you should be specific as to the amounts of payments, and promised dates of payment. Terms should always be arranged to meet the patient's needs.

10. Thereafter, if there is no action from the patient, if an ability to pay is present, and if there is no reason for dissatisfaction with services rendered, the account should be referred to a reputable and ethical collection agency. This action is necessary in fairness to those who do pay promptly.

Good credit and collection policies, as well as other good business practices, build good public relations. A fair number of complaints against physicians are precipitated by poor collection techniques. If he has well established office policies and well trained personnel, the doctor can delegate this function and leave himself free to concentrate on the patient's medical problems.

1969 IMS Golf Tournament

The Willow Creek Golf Course, in Des Moines, was loaded with players on Sunday afternoon, April 27, but only a few of them were physicians playing in the 1969 IMS Tournament. Two doctors shot 79's: Dr. John Polich, of Des Moines, and Dr. William Catalona, of Muscatine. Other respectable scores were made by Dr. N. M. Johnson, of Clarinda, Dr. G. E. Nielsen, of Des Moines, Dr. C. P. Addison, of Evansdale, Dr. E. L. Croxdale, of Villisca, and Dr. J. H. McNamee, of Des Moines.

Inscriptions on the cup are being brought up to date after a mix-up. We are sorry that last year's winner, Dr. S. Rodmond Smith, of Red Oak, didn't have the cup for display during the past twelve months.

Because our records are incomplete, we should like to be told who won the IMS Tournament in 1966. Information can be sent either to me or to Mr. William Crawford, of Whylie Optical Company, Des Moines, the firm that gave us the cup originally.

The winners, as we have them, are as follows:

1956 R. B. Allender, Des Moines
1957 N. M. Johnson, Clarinda
1958 M. D. Ravreby, Des Moines
1959 D. A. Newland, Des Moines
1960 William Catalona, Muscatine
1961 N. M. Johnson, Clarinda
1962 R. B. Allender, Des Moines
1963 C. F. Watson, Fairfield
1964 William Telfer, Waterloo
1965 Philip McLaughlin, Coralville
1966
1967 John L. Hoyt, Creston
1968 S. Rodmond Smith, Red Oak
1969 William Catalona, Muscatine

Since so few played, everyone got a prize. The pharmaceutical manufacturers that furnished prizes were CIBA, Abbott, Merck, Sharp and Dohme, Upjohn and Mead Johnson. The local donors were Newburn's Clothiers for Men, Robinson Wholesale, Hammer Pharmacy, King Pharmacy, Ford Hopkins Pharmacy, Katz Drug Co., Sipes' Pharmacy, and Walgreen Pharmacy. We appreciate their kindness, so with great humility we thank them.

—HAROLD J. MCCOY, M.D.
Chairman

Plan to attend 118th
AMA Annual Convention
New York City
July 13-17
Look for complete program
in May 26 issue of JAMA.

Iowa Association of Medical Assistants

Your Most Valuable Asset

The impression you make is your most valuable asset. It is a must for every medical assistant to establish a good impression not only of herself but of her office and of her employer. The manner in which she approaches others, in person or on the phone—her first words or actions—nearly always sound the "keynote" for all her future relations with the individual with whom she is dealing. If she starts politely, the response she gets will be similar. She can control the attitudes and actions of patients and other visitors to a remarkable extent if her conversations with them take place in a friendly atmosphere.

Remember—everybody is waiting for you to tell him or her something: what to do, how to do it, and often why it needs to be done. If you want a businesslike atmosphere, then establish one. The person with whom you are talking will respond in a like manner. In some respects your duties and actions can be compared to the setting of a stage, and the role you play and the role you assign to the other person can afford satisfaction to both of you.

Often it is the first impression that is the lasting one. That is regrettable, for in many instances it takes time to get to know people, and some of them really never get to know themselves. You yourself, more than anyone else, are responsible for how you are accepted. Many people worry about what others think of them, but few realize that people form their opinions of us largely from the opinions we have of ourselves. That is based on a law of psychology that is as certain as the law of gravitation. If you are not accepted as you would like to be, maybe you should blame yourself. Act as if you are nobody, and the world takes you at your own valuation; act as if you are somebody, and the world has no choice but to treat you as somebody. ONE WORD OF WARNING: Don't overdo it! Many people think they are showing the world what a high opinion they have of themselves, but instead are making stuffed-shirts of themselves. Arrogance and rudeness have an effect that is the reverse of the one that was hoped for.

The Bible says, "Judge not, that ye be not judged." That is a good text for human relations. Every time we judge people adversely and out loud, we give our hearers a clue for judging us. There are many times when one learns more about the person who is talking than about the person who is being criticized or condemned. If you can say nothing complimentary, say nothing. Idle gossip has no place between staff members, or between staff members and the public, in a medical office.

A new member of an office staff might well remember to refrain from discussing how she was mistreated at her previous place of employment—if, indeed, she thinks she got a raw deal there. Notice how restless you get when you are forced to listen to a chronic complainer. The "aginner" is the most unpopular member of any group.

Let me summarize:

1. In dealing with people, you yourself sound the keynote when you begin a conversation. If you start on a note of formality, the interchange will be formal. Start off on a friendly note, and the meeting will be friendly. Set the stage for a businesslike discussion, and the meeting will be businesslike. But start on a note of apology, and you will be forced to beg forgiveness all the way through.

2. The first impression that you make upon a stranger is likely to be the one that he will hold of you for the rest of time.

3. Other people tend to accept us at our own self-evaluations. If you think you are a nobody, you are practically asking other people to snub you.

4. Don't strive too hard to make a good impression. Instead, let the stranger get the feeling that he is making a good impression on you!

5. People judge you not only by the opinion you have of yourself, but also by the way you say you have been treated and by your opinion of your employer, of your job, and even of your competitors.

6. Don't be a knocker; don't be a complainer.

7. Ask questions only if you really want answers. Keep looking for things that you can praise. If you issue instructions or ask for things, be as gentle as possible and convey the impression that the possibility that your request won't be complied with has never entered your head.

8. To all of that, add the Golden Rule.

—Marian Little

Woman's Auxiliary News

President's Inaugural Address

As I have listened to the various speakers that have preceded me during the past two days I have been increasingly impressed by the magnitude of the work to be accomplished in the year ahead.

As I assume the presidency, I pledge that I will exert every effort to further the Auxiliary's program, and I ask for your continued support. I approach the task humbly, realizing the high standard that has been set by my predecessors, Lenor Bishop, Elaine Olson, Frances Hines, Patty Boe and Janet Ellis, to name just a few.

Mrs. Bishop can justly feel a sense of accomplishment and satisfaction for the year just completed. Sophocles said "One must wait until the evening to see how splendid the day has been."

To me it is fitting, at this beginning of a new Auxiliary year, that we take cognizance of the objectives of the Woman's Auxiliary to the Iowa Medical Society. To conform with these objectives, I should like to select as the theme for the coming year, "Support Organized Medicine." This will be our goal as a component organization of the American Medical Association, and it carries out the first two purposes of our organization: first, to assist the Iowa Medical Society in the advancement of medicine and public health, and second, to coordinate and advise concerning the activities of constituent Auxiliaries.

If I were to choose a second theme for the coming year, it would be the song title from The King and I, "Getting to Know You." I do feel that the promotion of personal acquaintanceship among our members is very important in carrying out the third objective of our organization, to cultivate friendly relations and promote mutual understanding among physicians' families. These three aims will be foremost in our planning.

In reviewing our past performance and in planning for the future, we must appreciate that the strength of our organization is based on the individual active worker in the community. In other words, the individual works of a good member, whether she be in an organized county Auxiliary or a member-at-large, may reflect more credit on herself, the Auxiliary and medicine in general than all the deliberations of this gathering and its officers. In the coming year as always, but with even greater vigor, we must recruit more interested members and encourage county-Auxiliary formation. Our goal is one hundred per cent membership!

Despite our feeling that the world is changing rapidly, and the opinion which some of us hold that our traditional standards should be radically changed, or swept away, we should remember that the principles of our parent organization, the American Medical Association, were laid down by Hippocrates, a Greek physician, who died in the third century B.C. He envisioned the practice of medicine as a science and an art that carried with it serious responsibilities and moral obligations. These same principles were embraced by the American Medical Association when it was organized at Philadelphia in 1847, and they continue to be the basic principles guiding its actions.

In St. Louis on May 26, 1922, twenty-four women from nine states organized the Woman's Auxiliary to the American Medical Association. This year our national membership numbers 90,538 doctors' wives. It is the responsibility of each and every one of these members to further the principles adhered to by the American Medical Association. We must remain allies of our physician husbands in the task of protecting public health. We owe it to ourselves and to the remainder of the citizenry to support workable and complete health care under the private practice of medicine.

We are living in what has been called "the age of rising aspirations," but could better be called "the age of unreasonable expectations." It seems that the environment to which we have grown accustomed is not good enough and is not changing fast enough for the oncoming generation. It is therefore our duty as an organization to engage in as much community activity as possible to improve the lot of the less fortunate and to strive for better understanding among all peoples. This we have been doing to a considerable degree with our community-service projects, but these activities need intensification and wider distribution throughout the state. The Auxiliary has not yet reached the apogee of its accomplishments.

In order that we may exert a proper influence on the course of events in our town, county, state, country and the world it is important that as individuals and collectively we take a meaningful and active part in matters political. We should support and encourage our husbands and families to support those candidates who, in turn, support the

best system of health care the world has ever known—our system.

In tribute to our late beloved National President, Mrs. C. C. Long, I shall close with a quotation from one of her recent talks. "Not by any stretch of the imagination do I think that the Auxiliary can solve all the problems of our country, but I do believe that we can and should do our part, for we have a responsibility as doctors' wives and as citizens to use what knowledge and talents we have, to help not only the medical profession but this nation of ours."

—JEANNE COUGHLAN (MRS. D. W.)

From the News Editors

As another year begins we see some new faces, some familiar faces, some old ideas, many new ideas, a few old problems and inevitably some new problems but fresh enthusiasm and ability to solve them. We members of the editorial staff hope to launch the AUXILIARY NEWS on a new mission of communication. Since it is really the only written word among Auxiliary members, both organized and unorganized, we hope to bring together all members of the State Auxiliary. We are striving, with the help of the Councilors, to have feature writers throughout the state help us "personalize" our news. We want to know all our members personally and their means of contributing, whether via the organized counties or as doctors' wives in busy communities. Our role is mainly "helping our doctors," but good public relations is equally important today, and publicity is necessary, so let us know how and what and where you are working, and send us photographs with your reports! We welcome all suggestions, and "any news is good news!"

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In Memoriam

Each year, a sad but very important part of our convention is the moment's pause in memory of our departed members during which we light a candle in their honor. This year Mrs. John F. Loeck assisted by Mrs. Phillip Tenney and Mrs. Elmer Vorisek conducted the service. The following is an excerpt from the Memoriam:

Sorrows humanize our race; Tears are the showers that fertilize this world;
And memory of things precious keepeth warm
The heart that once did hold them. They are poor who have lost nothing;
They are poorer far who losing, have forgotten;
They most poor of all, who lose and wish they might forget.

If life is sacred it should not be allowed to perish.
True, the body will return to the dust from whence it came, but the rememberance of the life should continue.
Someone has said, "We are not dead until we are forgotten."
For life is one, and in its warp and woof
There runs a thread of gold that glitters fair,
And sometimes in the pattern shows more sweet
Where there are sombre colors. It is true that we miss those who have left us, but

O, this thread of gold, we would not have it tarnish;
Let us turn oft and look back upon the wondrous web,
And when it shineth, sometimes we shall know
That memory is possession.

We are so selfish about death.
We count our grief far more than we consider their relief
When the greater Reaper gathers in the sheaf—
No more to know the seasons' constant change;
And we forget that it means only life—
Life with all joy, peace, rest and glory rife,
The victory won, and ended all the strife,
And Heaven no longer far away and strange.

In this service the following members from Iowa were honored:

Mrs. J. Donald Hennessy, Pottawattamie
Mrs. William B. Chase, Sr., Polk
Mrs. Chester L. Putnam, Polk
Mrs. John W. LaMar, Polk
Mrs. Loren G. Peterson, Polk
Mrs. Tom D. Throckmorton, Polk
Mrs. Clifford W. Losh, Jr., Polk
Mrs. John H. Peck, Polk
Mrs. Justus B. Roberts, Wapello
Mrs. Peirce D. Knott, Woodbury
Mrs. C. E. Porter, Dallas-Guthrie.
Mrs. V. H. Kahler, Grundy
Mrs. D. L. York, Union

Ethics for Doctor's Wives

Last year, at our Convention, we were honored to have as our guest and speaker the National President-Elect, Mrs. C. C. Long, of Arkansas. Those of us who met her and listened to her were impressed by her simplicity, friendliness and sincerity, and by her complete devotion to medicine and its allied programs. Thus it was a shock for us to learn of her untimely death one week before this Convention. She will be remembered for her time and effort, especially in the program for youth. In 1967 she wrote "Ethics for Doctors' Wives," which is reprinted here. This is truly a reflection of Mrs. Long's philosophy, and is a fitting memorial to her.

All activities of any Auxiliary must be bound by the Principles of Medical Ethics.

Just as physicians individually and collectively must maintain a high level of ethical conduct in their relationship with patients, colleagues, members of allied professions and the public, so must the wives of physicians, individually and collectively, maintain this code of conduct.

Discretion and good judgment should automatically dictate the proper attitude and course of action for an Auxiliary or an individual member concerning problems of medical ethics.

The doctor's wife must fully understand that her husband, as a physician, is obligated to hold in trust the confidences concerning his patients and that the principal objective of the medical profession is to render service to humanity, with full respect for the dignity of man.

Under the guidance of the medical profession the Auxiliary and individual members are obligated to make available to the public information on better health care.

The physician's wife should endeavor at all times to uphold the dignity and honor of the medical profession and accept its self-imposed discipline even in casual and social situations.

The wife of a physician should never solicit patients nor criticize the treatment or conduct of another physician in regard to his patients.

The honored ideals of the medical profession imply that the responsibilities of the physician extend not only to the individual, but also to society. His interest and participation in activities which have the purpose of improving both the health and the well being of the individual and the community are essential and are his responsibility. The physician's wife functions as a partner in fulfilling this obligation.

The Woman's Auxiliary and the individual member is the public representative of the medical profession. The attitude of the public toward the medical profession is greatly dependent on the attitude and behavior of the physician's wife and family.

Assisting the patient to locate a physician in an emergency is an obligation of the physician's wife, in the absence of her husband.

Constant telephone calls are often a source of irritation, but they should be handled with tact and patience.

Inquiries regarding a patient's state of health, from friends or families, should be tactfully referred to the physician.

Good taste and moderation, both at home and in public, should be observed by the physician's family.

Treatment and diagnosis should be left to the discretion of the physician and should never be indulged in by a member of his family.

Active community participation and leadership is essential to good citizenship and should be a primary concern of the Auxiliary member.

The community programs and projects of the medical society and Auxiliary should have the unqualified support of every physician's wife.

By furthering friendly relations among doctors' families, you will help your husband carry out the principle in the Hippocratic Oath which reads: "My colleagues will be my brothers."

Extend hospitality to the wives of medical students and young physicians.

Provided you are not professionally employed in your husband's office, patients and employees can regard your frequent visits as snooping.

Patient information is privileged information and should go no farther than the file.

Tactful guidance of office personnel is rarely possible. Leave such matters to the physician and the medical assistants' society.

Hospital regulations and privileges are made for

the benefit of the patient and should be courteously observed—especially by physicians' wives.

Have a friendly attitude toward nurses and medical assistants.

We can assume our husbands are intelligent. They had to be, to meet the requirements of their profession. They are not greedy. If they were, they would not have chosen medicine as a profession, for they could make more money on smaller investment of capital and effort. Our husbands like their work and all the obligations it entails. They are willing to take time and trouble with individuals.

We wives have a part in this profession in helping our husbands live up to their code of ethics—the only set of morals that has remained unchanged since its inception. We have an obligation to the sick, to the pioneers of medicine, to the teachers who have collected the knowledge of the ages and delivered it ready-made to our husbands, and to the thousands of other physicians throughout the world who are trying to bring honor to the name of doctor. We can help to promote the spirit of Luke, rather than Midas.

It does not follow that we are a privileged class. On the contrary, the community can expect more of us because we are members of doctors' family.

The interpretation of ethics for doctors' wives is personal in complexion, yet its underlying principles are evident to all of us.

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Around the Hawkeye State

BLACK HAWK COUNTY

Mrs. Orrin Hall is the new president of Black Hawk County Medical Auxiliary, succeeding Mrs. John Napier, who just completed a very successful Auxiliary year. Other officers are: Mrs. James H. Jeffries, first vice-president; Mrs. Robert Bailey, second vice-president; Mrs. Otto della Maddalena, recording secretary; Mrs. Lee Simso, corresponding secretary; and Mrs. George Heine, treasurer.

Mrs. Venella Byrd spoke to the members about the activities at the Jesse Cosby Center.

Mrs. George Heine, the hostess for the meeting, was assisted by Mmes. John McCoy, Andrew Smith and Herbert Shulman.

POLK COUNTY

Mrs. Floyd M. Burgeson was installed as president of the Woman's Auxiliary to the Polk County Medical Society at a luncheon meeting in May at the Cloud Room of the Des Moines Municipal Airport. Other officers installed were Mrs. Edward J. Drew, president-elect; Mrs. Lawrence O. Ely, first vice-president; Mrs. Boynton Woodburn, second vice-president; Mrs. Donald L. Sweem, recording secretary; Mrs. Henry H. Corn, treasurer; and Mrs. John H. Hege, corresponding secretary.

Mrs. William Shinkle, an Auxiliary member who holds degrees in both medicine and law, spoke on "Medicine and the Law."

WAPELLO COUNTY

The Auxiliary to the Wapello County Medical Society met early in May to install new officers. The meeting was preceded by a coffee at the home of Mrs. Harriet McDaniel Moore, with Mrs. D. O. Bovenmyer as assisting hostess.

Mrs. Arthur Austin, the president, reported on the state convention held in Des Moines the last of April.

Officers for the 1969-1970 year were installed as follows: president, Mrs. Loran E. Coppoc; vice-president, Mrs. David O. Holman; secretary, Mrs. H. A. Spilman; and treasurer, Mrs. Paul W. Scott.

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

President—Mrs. D. W. Coughlan, 1435 Park Avenue, Des Moines 50315
President-Elect—Mrs. L. H. Prewitt, 33 Birchwood Hills, Ottumwa 52501
Recording Secretary—Mrs. O. A. Elliott, 4010 Welker Avenue, Des Moines 50312
Treasurer—Mrs. J. F. Veverka, Box 324, Prairie City 50228
Editor of THE NEWS—Mrs. D. A. Mater, 302 S. 4th Street, Knoxville 50138
Assistant Editor—Mrs. R. J. Foley, 1025-16th Street, West Des Moines 50265



Personals



Dr. J. E. Blumgren announced his retirement from private practice at Vinton on May 2. On July 1 he is to become associate director of student health at the University of Northern Iowa, in Cedar Falls, an institution that now has an enrollment of 9,000. A 1941 graduate of the U. of I. College of Medicine, Dr. Blumgren began private practice in Vinton in 1947.

Late in April, **Dr. Axel T. J. Lund,** of Ackley, discussed fluothane at a meeting of the Franklin General Hospital nurses, in Hampton.

Plans are being made in Hedrick for a program, on July 12, in honor of **Dr. F. C. Perkins,** who has practiced there for 40 years.

The Lions Club presented its Distinguished Service and Citizenship Award to **Dr. DeWayne Anderson** following a dinner at the Imperial Inn, Boone, April 28. Eighty-one people were present. Dr. Anderson has served the Stanhope community for more than 20 years.

On June 1 **Dr. Norman Knosp** will conclude his practice in Belle Plaine, after 22 years of work there. He is to move to Cheyenne, Wyoming, where he will be employed at the Veterans Administration Hospital.

Dr. J. R. Gambill, a staff member at the Mental Health Institute, addressed a meeting of Church Women United, in Clarinda on May 2 on enabling the mentally and physically handicapped to resume full participation in community activities.

The Iowa Public Health Association gave an outstanding achievement award to **Dr. Julius Conner,** director of the Des Moines-Polk County Health Department, during its annual meeting at Hotel Savery, Des Moines, on May 2. The citation mentioned Dr. Conner's contributions to air-pollution control, accident prevention, mental health protection and programs for the underprivileged.

Dr. Donald D. VanEtten has joined the staff of Park Clinic, Mason City, as a general surgeon. Originally from Orange City, he took his M.D. degree at the University of Iowa in 1960, interned and served a residency at Butterworth Hospital, Grand Rapids, Michigan, and since then has spent three years as a medical missionary in the Near East. He and Mrs. VanEtten have three daughters and a son.

Dr. William B. Galbraith, of Cedar Rapids, announced that the Iowa Thoracic Society, of which he was president this past 12 months, voted at its annual meeting in April to urge Iowa hospitals to discontinue the sale of cigarettes to patients and visitors over the counter, or from carts or vending machines.

Dr. Beryl Michaelson, of Dakota City, was one of eight adults honored for leadership at the nineteenth annual Catholic Youth Organization Awards Day, held at the Pocahontas Catholic High School on April 27. She and the other award winners had given "outstanding effort and time . . . toward the general welfare and education of diocesan youth and their participation in various phases of parish activity."

An addition increasing the floor area by 4,000 square feet is under construction at the Gilfillan Clinic, in Bloomfield. The staff members hope to persuade several more physicians to join them.

In early April, **Dr. J. E. Whitmire,** of Sumner left for South Vietnam to serve his second three-month tour of duty with the AMA Volunteer Physician program. His practice is being carried on by **Dr. Malcolm Dickerson,** a 1954 graduate of

the University of California Medical School at San Francisco who just returned from Japan.

On April 2, **Dr. M. D. Enna,** of Dumont, spoke to the nurses at Franklin General Hospital, Hampton, on chronic obstructive lung disease.

At its annual meeting in Des Moines on April 28, the Iowa Orthopedic Society chose **Dr. William Catalona**, of Muscatine, as its president.

At a meeting of the American Surgical Association, in Cincinnati on April 30, **Dr. Edward E. Mason,** of the U. of I. College of Medicine, told the other members of the organization that he and **Dr. Chikashi Ito,** a Japanese surgeon, have obtained significant weight reduction in otherwise intractably obese patients by means of gastric bypass, a procedure which allows food to pass through only 10 per cent of the stomach. The operation has the additional effect of forcing patients to eat more slowly and to avoid sweet desserts. "The operation basically is a Pavlovian training device," he explained. "If patients eat too much or too fast, they become ill." Candidates for the operation must be physically active, young to middle-age adults who have made every effort to control their weight but are at least twice as heavy as it is estimated they should be.

Dr. Benjamin Broghammer discussed radiation therapy and explained the operation of the cobalt unit at a meeting of the Mason City chapter of the Iowa Association of Medical Assistants on April 10.

The Wright County Medical Society invited the public to a symposium on mental health centers, in Clarion on April 15.

Dr. R. A. Wilcox, a psychiatrist on the staff of the U. of I. student health service, was the guest speaker at the PTA meeting at Valley High School, West Des Moines, on April 15.

Drs. Ivan and Nelle Schultz closed their practice in Humboldt on May 1, after 37 years.

At the annual meeting of the Iowa Association of Pathologists, held in Des Moines on April 28, **Dr. John W. Greene, Jr.,** succeeded to the presidency, and **Dr. Richard F. Birge,** of Des Moines, and **Dr. Charles B. Preacher,** of Davenport, were chosen as president-elect and secretary-treasurer, respectively.

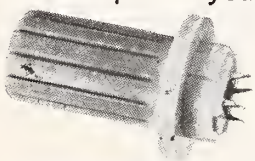
Dr. Hiram J. Leonard, who has been practicing in Estherville for about one year, has been certified by the American Board of Surgeons. He is a 1963 graduate of the U. of I. College of Medicine, and he took his specialty training at University Hospitals, Iowa City.

Dr. Robert E. Blue, who has been in general practice with Medical Associates, Cedar Falls, for five years, and earlier was in Storm Lake, is to begin a residency in radiology at Iowa Methodist Hospital, Des Moines, on July 1.

At the spring scientific session of the Iowa Urological Society, held at Mercy Hospital, Davenport, on April 19, the speakers included **Dr. Rubin H. Flocks, Dr. Thomas Bailey** and **Dr. Paul Rohlf,** all of Iowa City; **Dr. D. C. Utz,** of the Mayo Clinic; **Dr. Charles Preacher, Dr. Robert Kaplan** and **Dr. K. N. Bhasker,** all of Davenport, and **Dr. E. A. Motto** and **Dr. Erling Larson,** both of Bettendorf. The president of the organization is **Dr. Alex W. Boone**, of Davenport.

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Dr. Maurice Schnell, an assistant professor of orthopedic surgery at the U. of I. College of Medicine, discussed the fitting of artificial limbs following amputations at a meeting of the Iowa Physical Therapy Association, at Clear Lake in mid-April.

Dr. Raymond R. Rembolt, director of the U. of I. Hospital School and the 1961-1962 president of Optimists International, was the guest speaker at the charter banquet of the Ottumwa Optimists, at the Red Lyon Inn, there, on April 19. **Dr. John Rawls,** of Ottumwa, was installed as one of the vice-presidents of the new chapter.

Dr. E. L. Wiemers, clinical director of outpatient services at the Cherokee Mental Health Institute, and his wife, **Irene Wiemers, Ph.D.,** chief clinical psychologist at the Institute, participated in a two-day conference in Des Moines, April 22 and 23, for school personnel. Their topics were "How Public Schools Can Make Use of the Psychiatrist" and "How Public Schools Can Make Use of the Psychologist."

Dr. Robert E. Hodges, a professor of internal medicine at the U. of I., has praised nine prisoners at Anamosa and Ft. Madison for the discomfort they underwent recently as volunteer participants in the study of experimentally-induced scurvy. They were not promised a shortening of their sentences or any other reward, and they "made a major contribution to world health," he said. They first exhibited symptoms of scurvy between 90 and 120 days after vitamin C was eliminated from their diets. Since only vitamin C was missing, their symptoms were fewer and less severe than those that are seen in spontaneous scurvy, Dr. Hodges noted, and they made complete recoveries after vitamin C was restored to their food. That there are additional dietary deficiencies in spontaneous scurvy and, hopefully, what those deficiencies are will be passed on to the people who are developing agricultural programs for underdeveloped countries.

Dr. Craig Ellyson, of Waterloo, is co-chairman of a committee that is organizing a Northeast Iowa Health Planning Council to serve Black Hawk, Bremer, Butler, Buchanan, Fayette, Grundy and Tama Counties. At a public meeting regarding the project, held in Waterloo on April 21, one of the speakers was **Dr. John Brunkhorst,** of Waverly.

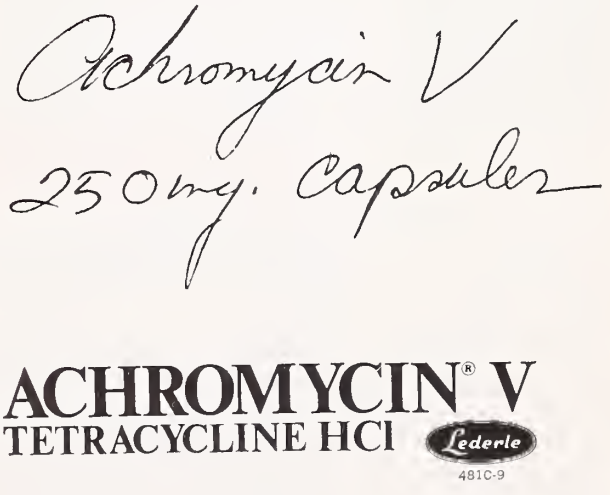
On April 24 **Dr. John MacGregor,** a Mason City surgeon, talked about the work of *S. S. Hope* at a meeting held at St. Andrew's Lutheran Church, in Ames. About a year ago, he served aboard the ship.

Dr. J. G. Goggin, of Ossian, who has practiced medicine for more than half a century, gave an account of medicine in northeast Iowa between 50 and 75 years ago to the Bloomfield Township Historical Society at the Castalia Zion Lutheran Church, in Postville on April 13. The attendance at the meeting totalled 57.

Dr. F. M. Ashler, of Hamburg, conducted a series of group therapy sessions each evening from April 20 through April 24 at the town hall in Sidney for people interested in quitting smoking. The five-day program used there is said to have been successful in many other parts of the country. No fees were charged.

Dr. Luther P. Stumme will move to Portland, Oregon, shortly to begin a residency in neurology. He has practiced general medicine at Denver, Iowa, with **Dr. E. H. Stumme** for the past 10 years.

Dr. John F. Sulzbach has left Burlington to become a professor of radiology at the University of Missouri Medical School, in Columbia.





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Dr. G. M. Arnott's office was one of ten places that thieves entered during the night, March 23, in Knoxville.

Dr. A. S. Owca, of Centerville, was the guest speaker at the annual Good Will Dinner held in Plano on March 31. Discussing "What It Takes to Be an American," he said, "There's too much government everywhere, but no one does anything about it because everybody gets a piece of the action."

On March 25 **Dr. T. E. Shea,** of Storm Lake, showed the motion picture "Twentieth Century Epidemic," and spoke briefly on the subject of the film, cardiovascular diseases, at a meeting of the Delphian Club, there.

Dr. Albert Dolan, a Waterloo general practitioner, discussed narcotics at the April 9 meeting of the Black Hawk Association of Medical Assistants.

The Pocahontas County Medical Society was host to an area meeting of physicians on April 10 at the Pocahontas Golf Club. **Dr. Donald L. Warkentin,** an assistant professor of internal medicine at the U. of I., discussed the philosophy and organization of an intensive coronary-care unit. **Dr. John Rhodes,** of Pocahontas, was in charge of arrangements, and **Dr. James Gannon,** of Laurens, is president of the Society.

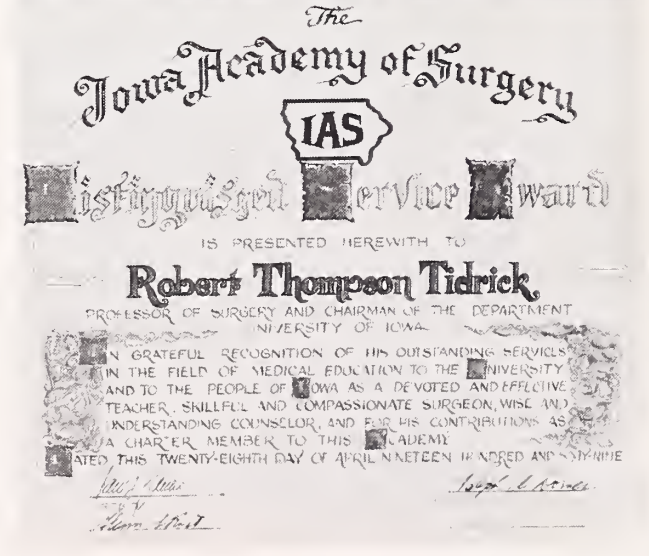
In mid-April **Dr. James L. Flood,** of Denison, attended the instructional program on traumatic injuries which the American College of Surgeons conducts each spring at the John B. Murphy Auditorium, in Chicago. He was notified recently of his acceptance into the American Society of Abdominal Surgery.

Dr. James D. Kimball, of Osceola, showed slides indicative of the increase in lung-cancer cases due to smoking at the annual meeting of the Clarke County Tuberculosis and Health Association on April 10. **Dr. George Armitage,** of Osceola, is the medical representative on the board of directors of the organization.

Dr. Helen B. Barton, chief psychiatrist in the Reynolds Unit at the Independence Mental Health Institute, was the keynote speaker at a symposium there, on April 24, dealing with relationships between mental hospitals and the courts. Those attending were psychiatrists, judges, attorneys, probation officers, social workers and others from 20 northeast Iowa counties, and the topics covered included sex offenders, alcoholism, driving while intoxicated, drug addiction, and behavior problems of adolescents and children.

Dr. Robert T. Tidrick, professor and chairman of the Department of Surgery at the University of Iowa was doubly honored by the Iowa Academy of Surgery at its spring meeting held at the Des Moines Club on April 28. He was chosen as its president-elect and was given its first Distinguished Service Award, in recognition of his outstanding contributions to the medical education of medical students, interns, residents and practicing surgeons and as chairman of the U. of I. Department of Surgery, as well as for his skilled and

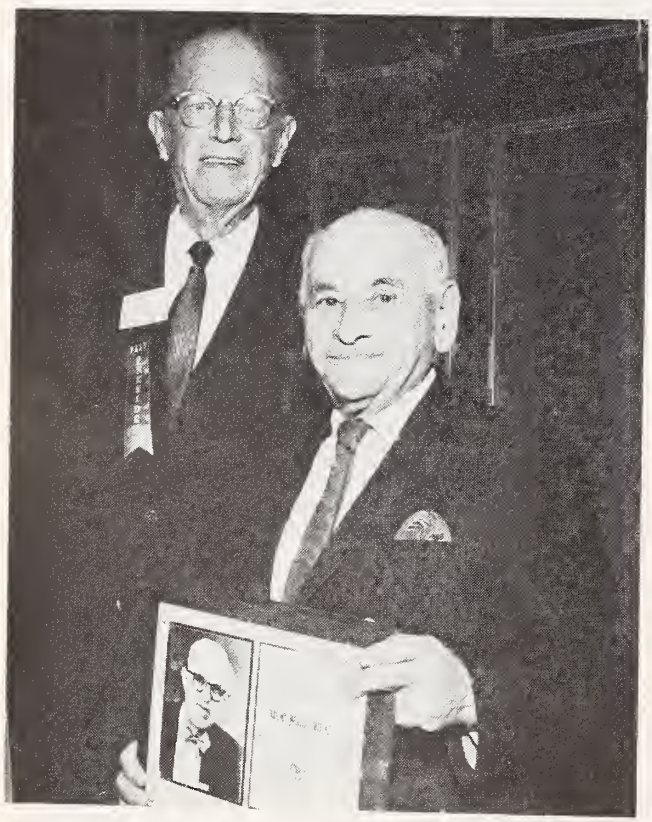




compassionate service to the many citizens of Iowa who have been his patients.

The guest speaker at the meeting was **Dr. Dwight C. McGoon**, a Mayo Clinic heart surgeon. He discussed his surgical experiences in Europe, Asia and South America, where he has repeatedly served as consultant. **Dr. Montagu S. Lawrence**, a professor of surgery at the U. of I., was installed as president of the academy, succeeding **Dr. Paul J. Laube**, of Dubuque. **Dr. Ralph A. Dorner**, of Des Moines, was in charge of local arrangements.

Dr. Vincent S. Aoki is one of four young physicians in the U. S. named to receive Faculty Development Awards in Clinical Pharmacology from the Pharmaceutical Manufacturers Association. Since 1966 he has been serving as a research internist with the U. S. Army Research Institute of Environmental Medicine, in Natick, Massachusetts. Before that, he was a resident, a clinical-pharmacology trainee and an instructor in internal medicine, successively, at the U. of I. He is to return to the U. of I. as an assistant professor of internal medicine in July. He took his A.B. at Harvard, his M.D. at Baylor, and his M.S. in pharmacology at the U. of I.



William D. Paul, M.D., professor emeritus of physical medicine and rehabilitation at the U. of I. College of Medicine (right) received the Ben T. Whitaker Teaching Award from Robert N. Larimer, M.D., of Sioux City, on behalf of the Interstate Postgraduate Medical Association of North America, at the IMS Annual Banquet. Dr. Whitaker's picture is on the certificate.

Drs. Herman A. Hein and **Joseph J. Heller**, members of the Medical Associates group in Dubuque, were made fellows of the American Academy of Pediatrics at the organization's recent meeting in Boston.

Dr. William C. Wildberger, superintendent of the Woodward State Hospital-School, has received approval from the HEW Department for the employment of 15 students this summer under the Student Work Experience and Training (SWEAT) program. The scheme is designed to stimulate young people to seek careers in the care and training of the mentally retarded. Juniors and seniors in high school, college freshmen and first-year nursing students are eligible. They work a 40-hour week, are paid $200 per month, and receive one meal per day at the hospital. Training is in seven areas: vocational rehabilitation, nursing, physical therapy, education, recreation, dietetics and chaplaincy.

Dr. H. S. Frenkel, of Clarinda, was elected president of the Southwest Division of the Iowa Heart Association at the organization's annual meeting in Red Oak on May 1.

Dr. H. F. Kiesling, of Lehigh, and **Dr. D. L. Borgen**, of Gowrie, were thanked for their long service to their communities on April 18. The occasion was the Senior Class Play, at Central Webster High School, which dealt with a physician about to retire who wished that his son would undertake to continue his work.

Dr. William C. Rosenfeld, of Mason City, discussed "Advances in the Diagnosis and Treatment of Heart Disease" at the May 1 meeting of the North Central Division of the Iowa Heart Association, held at the Algona Country Club.

Dr. George G. Spellman, of Sioux City, became president of the Iowa Thoracic Society, at its meeting in Des Moines on May 7; **Dr. Montague S. Lawrence**, of Iowa City, was chosen as president-elect; **Dr. Sergio Rabinovich**, of Iowa City, was made vice-president; and **Dr. Robert W. Kent**, of Tipton, was elected secretary-treasurer. Named to the executive committee were the immediate past-president, **Dr. William B. Galbraith**, of Cedar Rapids; **Dr. Craig Ellyson**, of Waterloo; **Dr. Ian Maclean Smith**, of Iowa City; **Dr. Paul Scott**, of Ottumwa; and **Dr. John S. Chapman**, of Dubuque.

Dr. George N. Bedell, of Iowa City, was named president of the Iowa Tuberculosis and Respiratory Disease Association, in Des Moines on May 8. **Dr. Irving J. Hanssmann**, of Council Bluffs, was made first vice-president, and **Dr. M. M. Wicklund**, of Waterloo, second vice-president.

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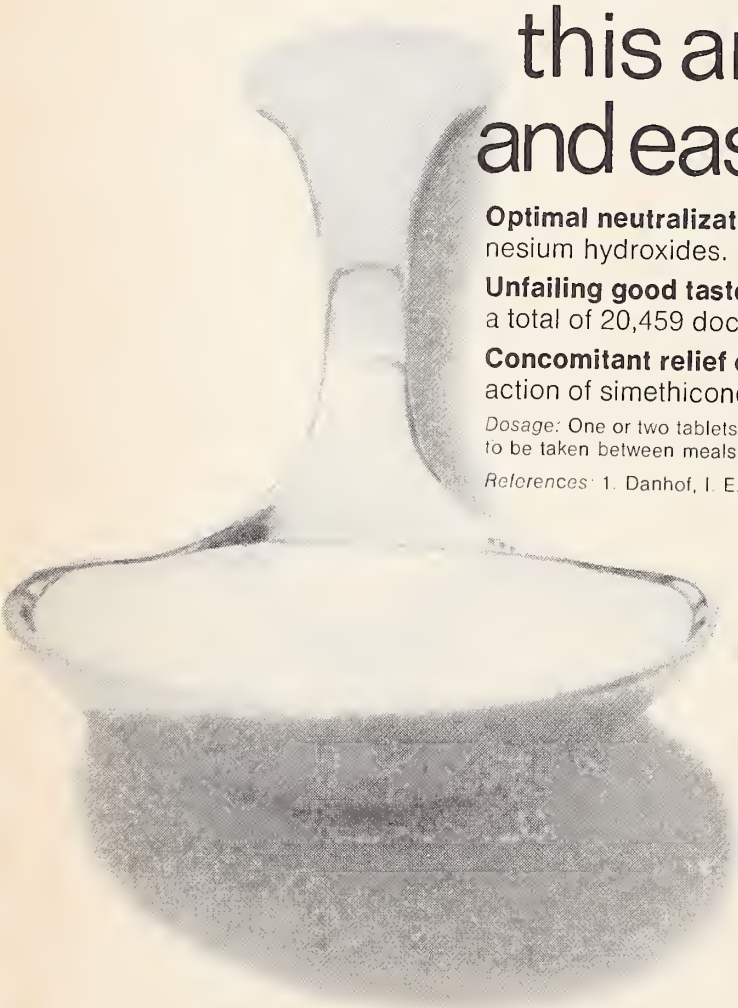
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Early in May, **Dr. Arthur Echternacht** was given the Ft. Dodge Sertoma Club's Service to Mankind Award. He took his medical degree at Washington University, St. Louis, in 1935, and is a diplomate of the American Board of Radiology. His civic work has been with the Committee on Education, the Foundation for Academic Achievement, the Rotary Club, the United Fund, the Webster County Tuberculosis Association and St. Mark's Episcopal Church.

The La Leche League of Des Moines honored two of its medical advisors, **Dr. Mark Thoman** and **Dr. Lee Forrest Hill,** at a reception May 10 at the Savery Hotel.

Dr. Donna M. Drees, a Des Moines general practitioner, has moved from the Hilltop Medical Center in the far-east section of the city, to the Northwest Medical Center, 4900 Franklin Avenue. She has been in practice for about three years.

The commencement speaker at Sutherland High School, on May 23, will be **Dr. George G. Caudill,** a pediatric allergist and president of the Des Moines Board of Education.

About 60 surgeons from throughout Iowa were guests of the Cedar Rapids surgeons May 10 for the semi-annual clinic of the Iowa Clinical Surgical Society. The guests had opportunities to observe 10 operations and to attend seven clinics at St. Luke's and Mercy Hospitals there. **Dr. George Ashline,** of Keokuk, is president of the Society; **Dr. Clyde B. Meffert** and **Dr. Campbell Watts,** of Cedar Rapids, were in charge of local arrangements.

At the May 12 meeting of the Clarion Lions Club, **Dr. Robert McCool, Dr. Robert Eaton, Dr. Richard Young** and **Dr. Charles P. Hawkins** presented a panel discussion on heart disease.

Dr. Addison W. Brown, an obstetrician and gynecologist in Des Moines, joined **Virginia Barkley, R.N.,** of New York City, nursing consultant for the American Cancer Society, in presenting a cancer conference for District 15 of the Iowa Nurses Association in Spencer on May 15.

At the annual spring meeting of the Northwest Division of the Iowa Heart Association, held in the Sheffield Hotel, Cherokee, on May 13, the guest speaker was **Dr. James W. Rathe,** of the Rohlf Memorial Clinic, Waverly, president-elect of the Iowa Heart Association.

Dr. Frank S. Larsen, of Fort Dodge, was chosen as president-elect of the Iowa Clinical Surgical Society, in Cedar Rapids on May 10. **Dr. Cyrus Beye,** of Sioux City, is the new president.

Dr. R. C. Gutch ended 55 years of medical practice in Chariton and Lucas County early in May. He intends moving to Knoxville, Tennessee, near his son-in-law and daughter, **Dr. and Mrs. J. E. Acker.** A reception was held for Dr. Gutch on May 12 in the Community Room of the National Bank and Trust Co., in Chariton.

Dr. R. E. Weland, of Cedar Rapids, chairman of the Professional Information Committee, American Cancer Society Iowa Division, Inc., has announced a new statewide film and projector distribution network for physicians, nurses and dentists in Iowa. Educational films are now available in cartridges for use with a small, lightweight projector, and both can be borrowed free of charge from the Division's offices in Cedar Rapids, Davenport, Des Moines, Dubuque, Council Bluffs, Sioux City, Waterloo and Mason City. Highly successful field tests have been made of the apparatus in Cedar Rapids, Dr. Weland says, and hospital medical staffs are urged to make it available in doctors' lounges on a regular basis.

At present the films available deal with cancer in children, cancer of the skin, cancer of the stomach, the dentist and cancer, cancer of the colon and rectum, cancer of the prostate, cancer of the breast, hormone therapy for advanced cancer, nursing of cancer patients, oral cancer, proctosigmoidoscopy, routine pelvic examinations, and the cytologic method. The films' running times vary from 14 to 29 minutes.

Dr. William G. Stone, medical director of the Black Hawk County Mental Health Center, spoke at the Unitarian Universalist Society building in Waterloo, on Sunday, May 18 on the subject he had dealt with in his recently published book "Does Everybody Need an Analyst?"

At the early-May meeting of the Humboldt Kiwanis Club, one of the local physicians, **Dr. James Coddington,** spoke on the diagnosis and treatment of cancer.

Dr. W. M. Krigsten, of Sioux City, succeeded **Dr. C. W. Seibert,** of Waterloo, as president of the Iowa Medical Society at the 1969 annual meeting. The newly chosen officers are **Dr. J. H. Sunderbruch,** Davenport, president-elect; **Dr. A. J. Havlik,** Tama, vice-president; and **Dr. J. E. Paulson,** Mason City, trustee. **Dr. L. D. Caraway,** Monticello, is the new speaker of the House of Delegates, and **Dr. C. J. Smith,** Gilmore City, is the new vice-speaker. **Dr. K. E. Lister,** Ottumwa, was chosen to succeed Dr. Sunderbrugh as chairman of the Board of Trustees, at an organizational meeting of that group which followed final adjournment of the House of Delegates. **Dr. J. F. Bishop,** Davenport, and **Dr. E. E. Gamet,** Lamoni,

were reelected chairman and secretary of the Judicial Council, at the organizational meeting of that group. There was just one change in the membership of the Judicial Council: **Dr. Homer E. Wichern,** of Des Moines, replaced **Dr. Clare A. Trueblood,** of Indianola.

Dr. Samuel J. Foman, a professor of pediatrics at the U. of I. presented results of a national nutritional survey at a meeting of directors of nutrition of state health departments in Chicago on April 28 and 29. His report dealt with the study entitled "Comprehensive Health Care Delivery Projects (Children and Youth)" which had been conducted by the Children's Bureau during March and April, 1968.

Dr. Charles Johnson, an assistant professor of pediatrics at University Hospitals, Iowa City, attended the American Association of Mental Deficiency meeting, and the conference of the American Academy on Mental Retardation, in San Francisco May 12-17. On April 10, Dr. Johnson had addressed the Des Moines Association for Childhood Education on "Children With Organic Behavior Problems."

Dr. William E. Connor, professor of internal medicine and director of the Clinical Research Center at the U. of I. College of Medicine, was a visiting professor at Tufts University Mound Bayou Health Clinic, at Mound Bayou, Mississippi, April 27-29. He consulted with clinic physicians on various patient problems, and spoke on "The Prevention and Treatment of Coronary Heart Disease."

At the Central District Physical Education Convention in St. Paul, Minnesota, on March 28 and 29, **Dr. Ronald M. Lauer,** a professor of pediatrics at the U. of I. presented a program entitled "The Problems in Physical Testing of School Children."

Dr. Ian M. Smith, a professor of internal medicine at the U. of I., participated in a symposium at the Kansas Medical Center, Kansas City, Kansas, on April 18, sponsored by the American Academy of General Practice. His topics were "Treatment of Severe and Recurrent Staphylococcal Infections," and "Pseudomonas: A Challenge to Successful Management."

Mr. L. W. Knapp, an associate professor of agricultural medicine at the U. of I. College of Medicine, has been named to the President's Committee on the Handicapped. He will work with a rural-areas section of the Committee.

Deaths

Dr. Ralph DeCicco, 64, chief medical officer at the Woodward State Hospital and School for the past two years, died at his apartment on the hospital grounds on April 25. He spent his boyhood in Des Moines, was a 1931 graduate of the U. of I. College of Medicine, and was a staff member of Veterans Administration medical facilities in Louisville, Kentucky, and Clinton, Iowa, before coming to Woodward.

Dr. Walter William Daut, 79, who practiced medicine in Muscatine for 42 years, before retiring in 1957, died at St. Petersburg, Florida, on April 9. He was a 1915 graduate of the U. of I. College of Medicine.

Dr. Richard V. Daut, 50, a Davenport urologist and the son of Dr. W. W. Daut, of Muscatine, whose death was just noted, died following a cerebral vascular accident on May 9. He was a 1944 graduate of the U. of I. College of Medicine and he received his specialty training at the Mayo Clinic.

Dr. R. H. Cutler, 84, who practiced at Little Sioux for 55 years, until his retirement five years ago, died at a Sioux City hospital on April 22. He was a graduate of St. Louis Medical College in the Class of 1909.

Dr. Bertram Leonard, 90, a 1908 graduate of the U. of I College of Medicine who practiced in various Woodbury County towns from then until sometime in the 1940's, died at a Sioux City hospital on April 13. Most recently, his home was in Correctionville.

Dr. Bonnybell A. Hall, 76, who practiced for 46 years in Maynard, until her retirement two years ago, died at Mercy Hospital, Oelwein, on April 8. She was a 1920 graduate of the U. of I. College of Medicine. Her husband, Dr. C. C. Hall, remains in practice at Maynard.

Dr. Leo C. Nelson, 67, who practiced medicine and surgery in Jefferson, died at his home there, on April 30, following a long illness. He was a 1931 graduate of the U. of I. College of Medicine.

Dr. Elmer V. Riedesel, 73, a general practitioner in Wheatland for more than 47 years, died at Mercy Hospital, in Davenport, on May 5. He was a 1921 graduate of the U. of I. College of Medicine.

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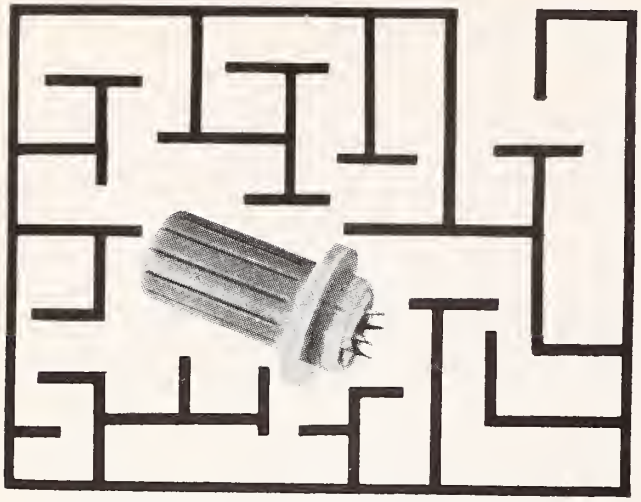
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- Determination of Minimum Wrestling Weights —Charles M. Tipton, Ph.D., Tse-Kia Tcheng, M.S., and William D. Paul, M.D.
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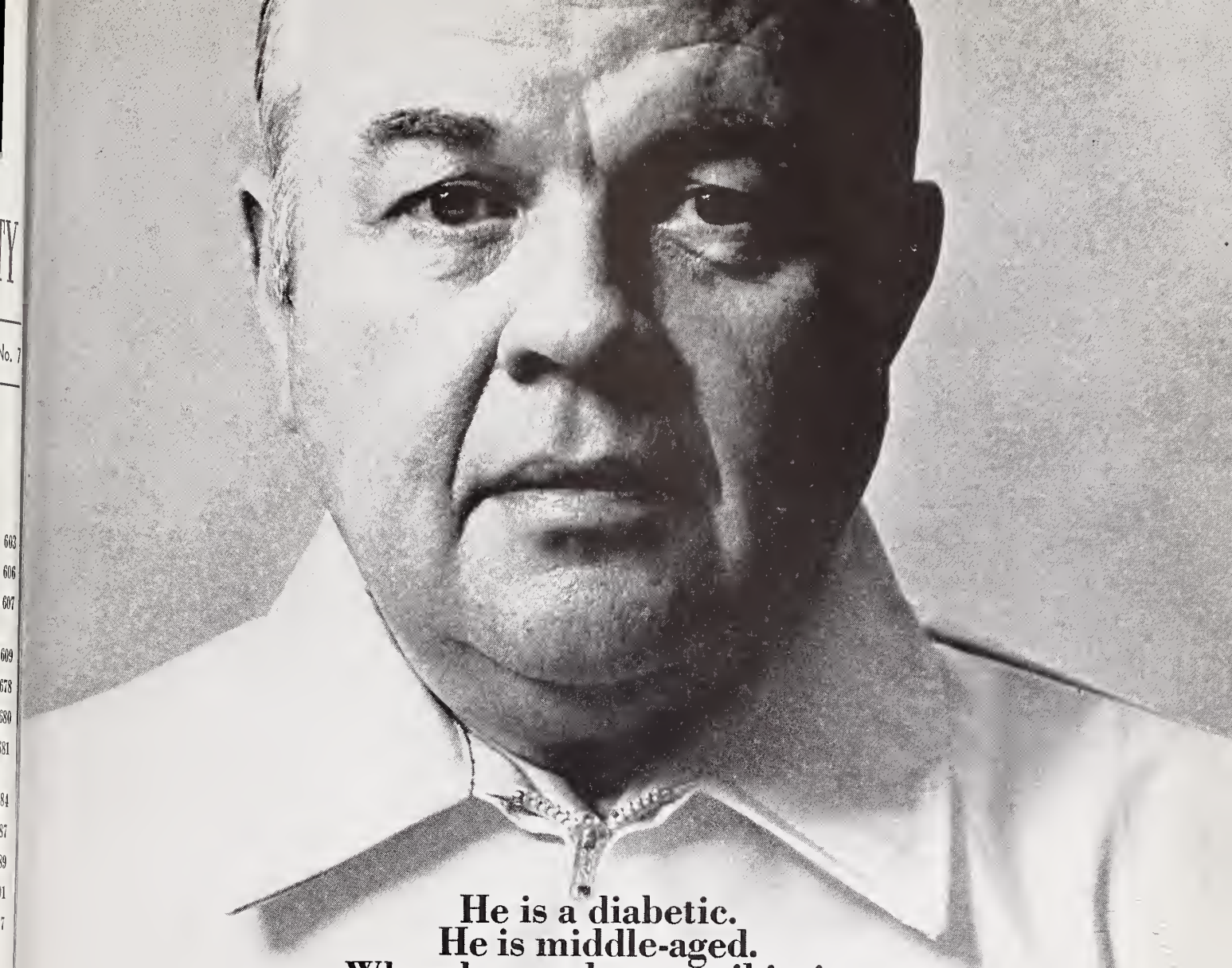
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Warning: In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated, and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort. Necessary subsequent courses of treatment with tetracyclines should be carefully observed.

Precautions: Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

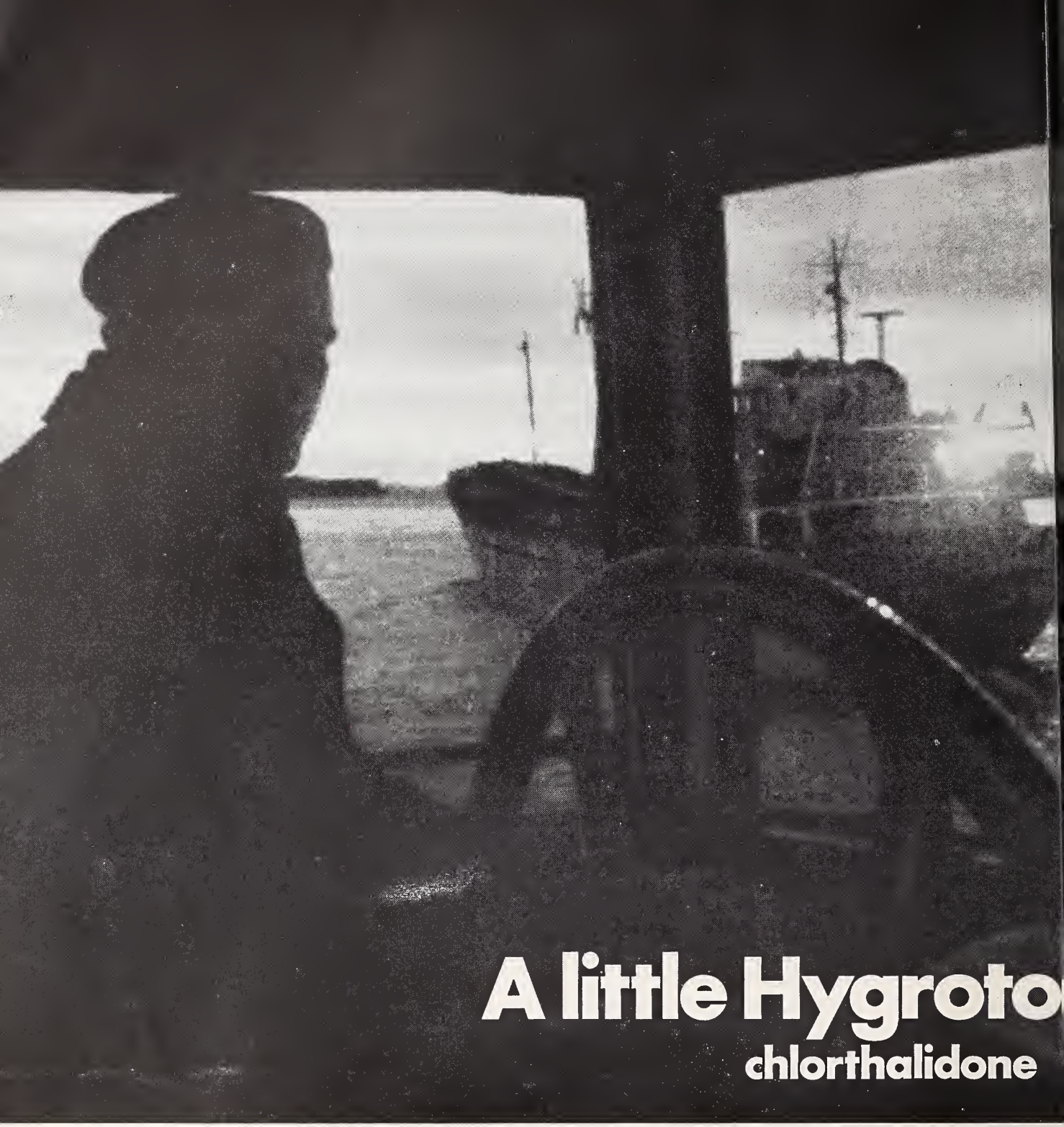
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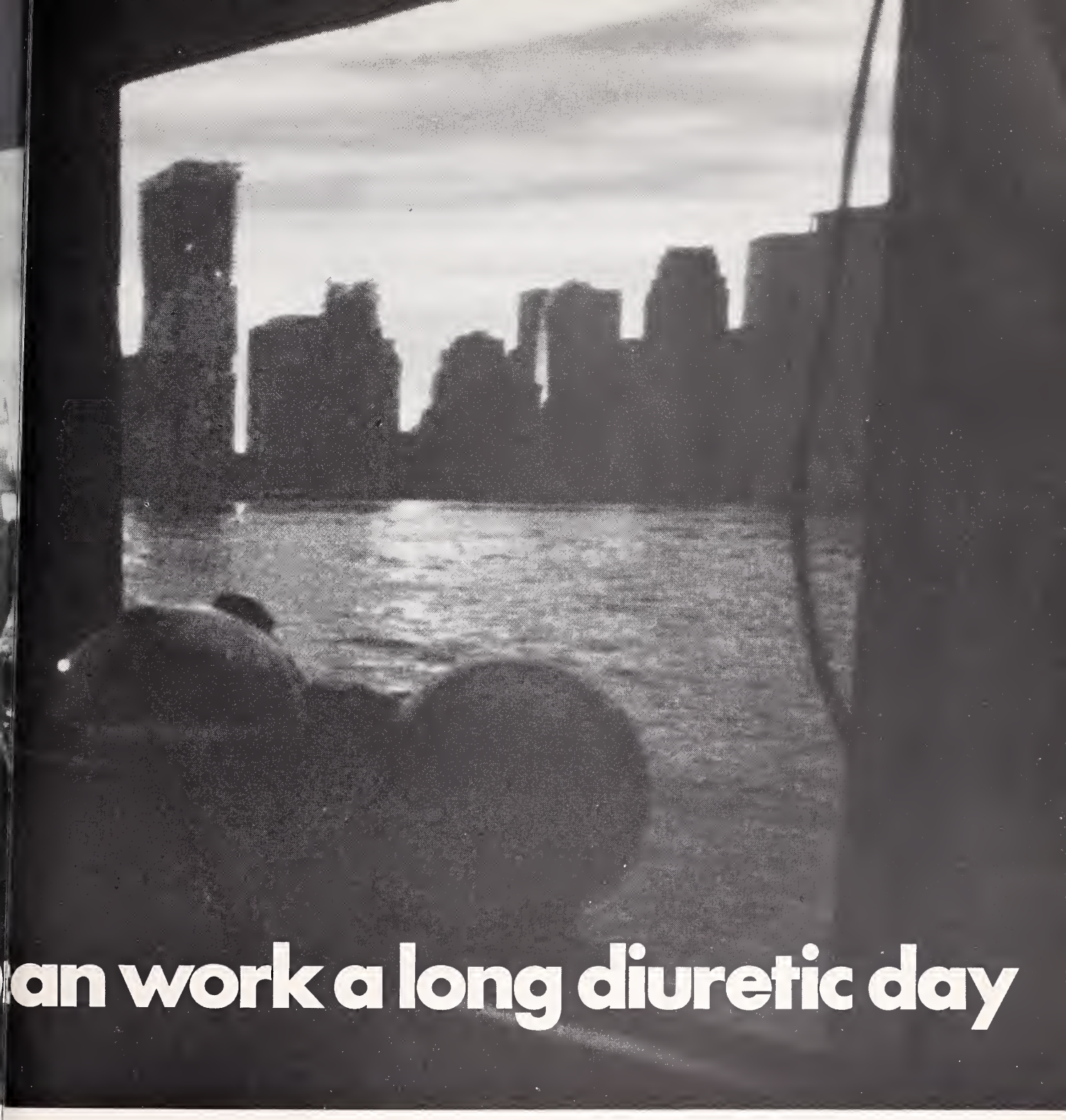
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Use with caution in pregnant women and nursing mothers since the drug may cross the placental barrier and appear in cord blood and since thiazides may appear in breast milk. The drug may result in fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult. When used in women of childbearing age, balance benefits of drug against possible hazards to fetus.

Precautions: Antihypertensive therapy with this drug should always be initiated cautiously in postsympathectomy patients and in patients receiving ganglionic blocking agents, other potent antihypertensive drugs or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. Because of the possibility of progression of renal damage, periodic determination of the BUN is indicated. Discontinue if the BUN rises or liver dysfunction is aggravated. Hepatic coma may be precipitated.

Electrolyte imbalance, sodium and/or potassium depletion may occur. If potassium depletion should occur during therapy, the drug should be discontinued and potassium supplements given, provided the patient does not have marked oliguria.

Take special care in cirrhosis or severe ischemic heart disease and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended.

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The Month in Washington

Washington, D. C.—The American Medical Association has offered to cooperate in a Senate investigation of large Medicare and Medicaid payments to physicians and other health practitioners.

The offer followed a Senate speech by Senator John J. Williams (R., Del.), in which he reported that the staff of the Senate Finance Committee had found that several thousand doctors, dentists and others had received $25,000 or more for their services under the two government programs in 1968.

In a second Senate speech, Williams expressed appreciation for the AMA offer to cooperate. "This is the type of cooperation we need, and I appreciate this support from the American Medical Association," Williams told the Senate. "I sincerely hope that we shall have similar pledges of support from representatives of the other groups affected.

"I can assure each of these groups that our study will not result in a blanket indictment against any segment of the industry involved. We fully recognize that the overwhelming percentage of those who are in any way connected or working with this program are trying to do a good job; however, when instances of exploitation or excessive charges are discovered they must be exposed and properly dealt with."

Williams, who has announced he will not seek reelection next year, is a member of the Senate Finance Committee which is making an extensive study of the operation of Medicaid and Medicare. Williams said that, although a staff report would not be ready until later this summer, the committee's investigation already had shown:

"First, in 1968 the Medicare program paid $25,000 or more to each of at least 5,000 physicians.

"Second, thousands of health practitioners—doctors, dentists, optometrists, and others—were each paid $25,000 or more under welfare health care programs in 1968. . . . A surprising note is the large number of dentists appearing on the lists from welfare agencies. . . .

"Data has also been gathered and detailed tables prepared comparing the average Medicare payments for the most common surgical procedures for older people with the maximum payments allowed under the most widely held Blue Shield contract in the same geographical area. The results are startling. Medicare's average payments run as much as two to four times as high as Blue Shield maximums. For example, in two areas of the country Medicare's average payment for a cataract operation is more than four times as much as the Blue Shield allowance. These are not isolated cases. There is a pronounced pattern of inflated payments by Medicare. The report to the Committee will include pinpointing the causes underlying these extremely generous handouts of public funds.

"Another unusual situation has occurred in Social Security's pressing carriers to pay for so-called supervisory services rendered by a teaching physician, even though the actual care was provided by an intern or resident. Before Medicare, virtually no insurer paid for such services. . . .

"The investigation has expanded the evaluation of carrier and intermediary performance to determine whether the government is getting what it is certainly paying for, and the extent to which intermediaries and carriers are carrying out specific functions assigned to them by the Medicare statute. Thus far a wide variance in levels of performance has been observed. . . .

"The law requires intermediaries and carriers to exercise effective controls on utilization of services. . . . Yet some carriers and intermediaries appear virtually to ignore performance of this vital function while others seem to be doing a reasonably effective job."

Following Williams' first speech, the AMA issued a statement saying that it shared with the Senator a concern over the rising costs of Medicare and Medicaid. The Association offered to cooperate with the Senate Finance Committee or any other congressional committee studying the problem of rising health-care costs. The AMA earlier had made the same offer to Health, Education and Welfare Secretary Robert H. Finch.

The AMA statement said: "For some time the AMA has been giving national leadership in coordinating the efforts of state and county medical societies in the establishment and effective functioning of local review and utilization committees checking on the health-care services rendered under the Medicare and Medicaid programs. Close liaison also has been established between carriers and many medical societies in reviewing disbursements under the government programs.

"All investigations so far have indicated that an overwhelming majority of physicians participating in Medicare and Medicaid are charging reasonable fees. The charges of only about two per cent of the physicians receiving payments from the programs have been challenged. Of course, the AMA favors appropriate action in any of the cases where physicians are found to receive improper payments. Last June, the AMA Board of Trustees urged all state and local medical societies 'to act swiftly and firmly in all instances of known ex-

ploitation, and excessive charges for health care that may occur in their jurisdiction.' In 1967, the AMA said 'any reports of abuses by physicians or by any other health-care program should be thoroughly and promptly investigated and action taken where indicated.' Several medical societies have expelled members where it has been proved that a physician's charges were excessive or he in some other way had exploited the program.

"The AMA, through its publications and speeches by its officials, has been emphasizing to physicians the responsibility they have to hold down the health-care costs of their patients both under and outside government programs. In an April 17 letter to Mr. Finch, Dr. Wilbur said the AMA "is eager to make available to your office the composite experience and judgment of the nation's physicians, who are the principal providers of health care to all the people.'

"The knowledge and judgment of the nation's physicians—as well as of the prepayment plans, health insurance industry, hospitals, the allied health professions, the actuaries and others—must be enlisted in your battle against the health-care portion of the inflation problem," Dr. Wilbur said.

* * *

The House passed and sent to the Senate a three-year $937 million extension of the Hill-Burton Act, under which the federal government has helped finance construction of 425,000 hospital and nursing home beds.

In addition to extending existing aid, the bill provides new loan guarantees, which the Nixon Administration requested, and interest subsidies, which the Administration opposed. The bill as passed authorizes appropriations (over three years) up to $405 million for hospital construction; $165 million for modernization; and $300 million in guaranteed loans, toward which the government would contribute up to $37 million in three-per cent interest subsidies. In addition, grants up to $30 million could be made for emergency-room modernization.

* * *

The American Medical Association urged that Congress approve full appropriations for medical-education programs.

Dr. C. H. William Ruhe, director of the AMA's Division of Medical Education, testified before a House appropriations subcommittee that the nation's urgent need for more physicians could "be met effectively only by a major increase in the capacity of American medical schools to educate more physicians."

"It is therefore appropriate to emphasize again that full funding in the amounts authorized by the Health Manpower Act of 1968 is necessary to permit the construction of new and expanded facilities before major enrollment increases will be feasible," Dr. Ruhe said.

In a letter to the House Public Health and Welfare Subcommittee, the AMA also supported extension of the Medical Library Assistance Act. Dr. Ernest B. Howard, AMA executive vice-president, said, "We cannot exaggerate the importance to the health professions and the public they serve" of the many beneficial services supported through the programs.

* * *

President Nixon created the cabinet-level Environmental Quality Council to begin a major attack on pollution of the environment. He also named a companion 15-member Citizens' Advisory Committee on the recommendation of Lee A. Dubridge, Ph.D., his chief science adviser.

The President said the Council, serving as an advisory board on a par with the National Security Council and the Urban Affairs Council, "will provide the focal point for this Administration's efforts to protect all of our natural resources."

Dr. Dubridge said, "The problem is how we can make maximum use of our environment . . . without despoiling it." He said the Council would move promptly on the problems of disposal of waste products—a key factor in deterioration of the environment.

The President will head the Council, and it also will include the vice-president and the secretaries of Agriculture; Commerce; Health, Education and Welfare; Housing and Urban Development; Interior; and Transportation.

Laurance S. Rockefeller, one of the nation's leading conservationists and a key figure in Lady Bird Johnson's National Beautification Campaign, will be chairman of the Citizens' Advisory Committee.

First Aid and Athletes' Bill of Rights

The AMA Committee on the Medical Aspects of Sports (in cooperation with the National Athletic Trainers Association and the National Federation of State High School Athletic Associations) has issued a heavy stock, 11 x 17″ "First Aid Chart for Athletic Injuries" for posting in recreation areas and locker rooms. It outlines in simple, direct terms the emergency treatments for bone injuries, open wounds, heat illness, impact blows, muscle and ligament strains, blisters, burns and eye injuries. It also alerts the reader to look for the Emergency Medical ID Symbol and carries space for local emergency phone numbers.

A likely companion to the first aid chart is the poster, "The Bill of Rights for the School and College Athlete," in the same size and stock. The "Rights" are the athlete's entitlement to Good Coaching, Good Officiating, Good Equipment and Facilities, and Good Health Supervision.



Photo professionally posed.

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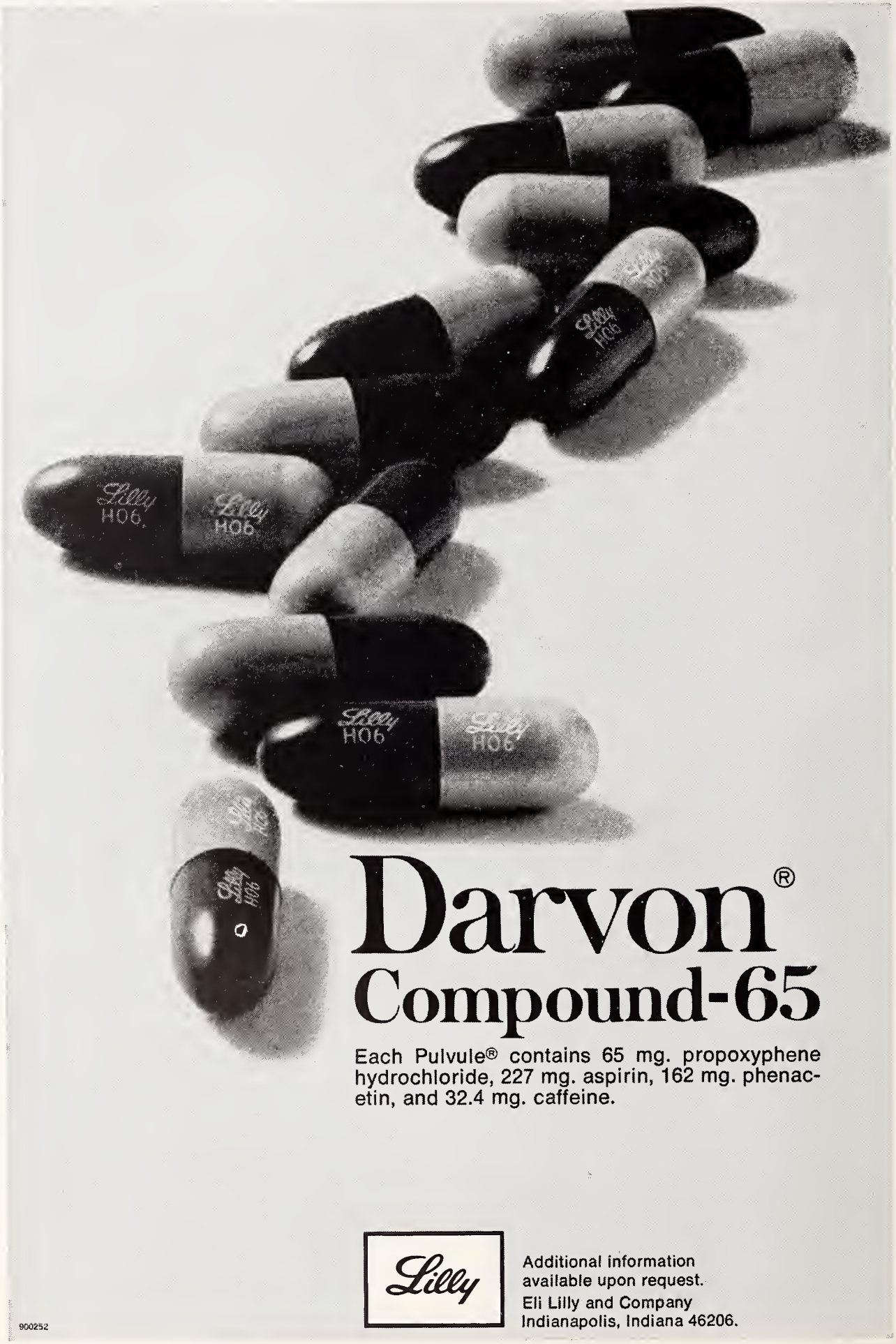
Pen•Vee® K is usually so rapidly and completely absorbed that therapeutic penicillin levels are attained within 15 to 30 minutes. Thus it can often obviate the need for penicillin injections. The higher serum levels produced generally last longer than with those of oral penicillin G.

Indications: Infections susceptible to oral penicillin G: prophylaxis and treatment of streptococcal infections; treatment of pneumococcal, gonococcal, and susceptible staphylococcal infections; prophylaxis of rheumatic fever in patients with a previous history of the disease.
Contraindications: Infections caused by nonsusceptible organisms; history of penicillin sensitivity.
Warnings: Acute anaphylaxis (may prove fatal unless promptly controlled) is rare but more frequent in patients with previous penicillin sensitivity, bronchial asthma or other allergies. Resuscitative (epinephrine, aminophylline, pressor amines) and supportive (antihistamines, methylprednisolone sodium succinate) drugs should be readily available. Other rare hypersensitivity reactions include nephropathy, hemolytic anemia, leucopenia and thrombocytopenia. In suspected hypersensitivity, evaluation of renal and hematopoietic systems is recommended.
Precautions: In suspected staphylococcal infections, perform proper laboratory studies including sensitivity tests. If overgrowth of nonsusceptible organisms occurs (constant observation is essential), discontinue penicillin and take appropriate measures. Whenever allergic reactions occur, withdraw penicillin unless condition being treated is considered life threatening and amenable only to penicillin. Penicillin may delay or prevent appearance of primary syphilitic lesions. Gonorrhea patients suspected of concurrent syphilis should be tested serologically for at least 3 months. When lesions of primary syphilis are suspected, dark-field examination should precede use of penicillin. Treat beta-hemolytic streptococcal infections with full therapeutic dosage for at least 10 days to prevent rheumatic fever or glomerulonephritis. In staphylococcal infections, perform surgery as indicated.
Adverse Reactions: (Penicillin has significant index of sensitization): Skin rashes, ranging from maculopapular eruptions to exfoliative dermatitis; urticaria; serum sickness-like reactions, including chills, fever, edema, arthralgia and prostration. Severe and often fatal anaphylaxis has been reported (see "Warnings").
Composition: Tablets—125 mg. (200,000 units), 250 mg. (400,000 units), 500 mg. (800,000 units); Liquid—125 mg. (200,000 units) and 250 mg. (400,000 units) per 5 cc.

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President's Address

Change: What Kind? How Much?

C. W. SEIBERT, M.D.
Waterloo

At the outset of my remarks, permit me to commend and thank the 1969 Program Committee for its effective work. Under the leadership of Drs. Don Newland and Jim Kelsey, the Committee has fashioned a two-day program which we believe to be most relevant.

I only wish all Iowans could know the existence of today's forum on New Approaches to the Delivery of Medical Services to the Rural Community. Knowledge by the total population of the medical profession's genuine interest and concern over the quality and quantity of health care available would help offset ill-advised public comments which have been made by state legislators and others. These individuals have the notion that physicians are anxious to hold their numbers down and retard the development of health care. Because the first-year class of every medical school in the United States during the past 20 years has been completely filled, and because the numbers of medical schools constructed or under construction are constantly increasing, you and I know that nothing could be farther from the truth.

Today's session is one further effort of the Iowa Medical Society to examine the health-care picture in Iowa. The involvement of the medical profession in matters relating to manpower, facilities and systems for the delivery of care has been longstanding. Over the past 17 years, for example, the IMS Educational Loan Fund and its successor the Scanlon Medical Foundation have helped to finance the medical educatios of more than 230 Iowans. This non-profit organization was re-named last November in honor of the man who stimulated its development, Dr. George H. Scanlon.

Two years ago, in recognition of the need for a stepped-up evaluation of the state's health-care picture, the Society created a special Task Force on Medical Manpower. This 21 member Task Force has been asked to recommend and to implement programs designed to resolve or alleviate the problems that it identified during its investigative processes. For your information, let me mention that a special report, which includes a summary of the activities of the Society's Task Force, has just been released to members of the Iowa General Assembly and others. The report also contains some basic guidelines for consideration in the future delivery of medical care in Iowa. The report is contained in the HANDBOOK FOR THE HOUSE OF DELEGATES, it will be republished in the July issue of the IMS JOURNAL, and I commend it to you. I would be remiss if I did not take time to commend Dr. Byron Merkel and his Task Force colleagues for their effective work.

My theme this morning, "Change: What Kind? How Much?" is a provocative one. I propose in the next few minutes to undertake a broad-brush review of Iowa conditions as they have existed and do exist. Taken together, these remarks will constitute a short assessment of what kind and how much change we have experienced. Thus, hopefully, I shall set the climate for the ensuing discussion of specific aspects of health-care delivery.

An adult Iowan, in 1900, was doubtless astounded at the change—at the progress—which his kin had already made in safeguarding and prolonging human life. He certainly was amazed to learn, for example, that in America as a whole children born that year could expect to live to an average age of 47.3 years—some 10 to 15 years longer than he might have been expected to live. And he would be quite unwilling to suppose that by 1965 that figure would have increased by an additional 23 years, to a life expectancy of 70. All of us can take satisfaction, incidentally, in the fact that Iowa's most recent life expectancy figure of 71.9 years ranks second in the nation.

The importance of good health, today, to Iowa's approximately 2.7 million citizens is obvious. Without it, the 223,000 agricultural workers on Iowa's 145,600 farms would be hard pressed to continue providing the nation with 10 per cent of the nation's food supply.

Without good health, the productivity of the state's 218,000 industrial workers wou'd be endangered. And the 10 billion dollars worth of Iowa manufactured products would almost certainly dwindle.

Dr. Seibert delivered this address on April 28, at the first of the General Sessions of the 1969 Annual Meeting of the Iowa Medical Society.

Without it, the approximately 40,000 educators in Iowa's public and private elementary and secondary schools would be handicapped mightily in their teaching tasks. And the state's claim on the highest functional literacy rate in the nation would be threatened.

HEALTH CARE, IN 1969, IS AN IMPORTANT FIELD OF EMPLOYMENT

Health care may be partitioned into four major categories: preventive or protective care; diagnostic care; therapeutic care; rehabilitative care. And into these broad categories we can fit the approximately 50,000 Iowans who comprise the health-care team. This team, of which each one of you is an important member, serves at a challenging time, when enormous advances are being made—the transplant field being perhaps the most dramatic at the moment. Coupled with the progress factor is an ever-increasing health consciousness on the part of the public. Truly, the questions, "How much change?" and "What kind of change?" are almost unanswerable when viewed against the state's century-plus history.

In 1950, health services constituted the nation's fifth largest employment field. In 1960 they ranked third, behind agriculture and construction. An analysis of Iowa employment groups shows that a 36 per cent increase in the number of health-care workers occurred between 1961 and 1967. Despite this growth, nationally and in Iowa, there nonetheless exists a real concern among many Iowans as to the state's ability to balance the supply of personnel—professionals and supportive workers—with the demand for services. The energies of many persons both within the ranks of the health professions and outside are being directed at assuring a balance between the supply and the demand.

HEALTH SERVICES ARE MOVING TO URBAN CENTERS

We are aware of the general shift in Iowa's population from farm to town and city. The urban population in Iowa increased from 47 per cent in 1950 to over 53 per cent in 1960, representing an increase of 214,000 urban residents. This pattern presumably has continued through the now-concluding decade of the 1960's.

A parallel picture is apparent in the health-care field. In 1947 slightly more than 50 per cent of Iowa's medical doctors practiced in the 16 most populous counties; in 1957 this share had increased to 61 per cent, and in 1967, 66 per cent of the physicians were in the larger communities. And the change in the total number of medical physicians in those 20 years was only 23, from 2,381 in 1947 to 2,404 in 1967. Others—osteopathic physicians, dentists, pharmacists, nurses, veterinarians—have experienced a somewhat similar urban migration.

Health professionals, and perhaps doctors in particular, have two principal reasons for choosing the more urban locations. First, they desire to be close to professional colleagues of similar and different types of specialty training, for referral and consultation purposes. Second, they wish to take advantage of those sophisticated patient facilities which are economically more feasible in the larger clinic or hospital setting. For these reasons, in response to the question, "What kind of change?" I would say health care in Iowa will continue its urban trend.

The accessibility of physicians to Iowans varies quite markedly from one part of the state to another. It is possible to report a reasonable doctor-patient ratio (1 to 950) on the basis of statewide population figures, but the ratio skews sharply, up and down, depending on where you live.

The construction and maintenance of highways have significantly increased the mobility of Iowans. In contrast to earlier times, persons can now get to hospitals several miles away in a relatively short time. It is quite likely the rural Iowan can travel 20 miles in the same length of time it takes his metropolitan counterpart to travel 10 miles through snarled traffic. So, actually, no Iowan is more than 40 minutes to an hour from a center with essentially all the facilities for modern care. But while rapid transit tends to ease manpower problems, it is frequently regarded as an unacceptable alternative by the person living in a small town which has had a doctor until just recently.

As mentioned, there are approximately 2,400 medical doctors in the state. Additionally, there are about 400 doctors of osteopathy, 1,500 dentists, 1,650 pharmacists, 1,200 veterinarians, and 22,000 licensed nurses. The population of nurses is elusive, however. It has been determined that there are between 11,000 and 12,000 registered nurses in Iowa employed full or part time. About 65 per cent of the working registered nurses and licensed practical nurses are employed in Iowa hospitals.

HEALTH-CARE MANPOWER IS OUR MAJOR PROBLEM

In all fields, a loud call has been issued for more personnel. A recent survey of Iowa hospitals and extended-care facilities projected a rather immediate and urgent need for 1,200 additional RN's and 800 additional LPN's.

Actually, there are several hundred different careers in the health field, and more are emerging each year. The coronary-care nurse, the inhalation therapist and the operating-room technician are examples of newer job designations. Medicine is challenged not only to increase its own ranks, but also to assure greater numbers for the total health-care team, as well as a more coordinated and efficient use of all these members. The idea of the medical corpsman being prepared to function as a physician's assistant has been advanced. In fact, training programs for this billet have

been undertaken. The concept is interesting and worthy of consideration, but it is not without significant problems. This approach is to be discussed later today.

There are almost limitless health career opportunities in Iowa. To put all of the recent accumulated medical knowledge into the widest possible application, more and more young men and women are needed in virtually all the health professions and occupations. And I should say that the state's numerous professional, paramedical and voluntary health organizations devote considerable time and energy recruiting young Iowans for health careers. The representatives of these organizations—and I include the Iowa Medical Society well up on this list—are giving increasing attention to the vexing problem of persuading these people who have been trained in Iowa to remain and to work in Iowa. "Sell Iowa" efforts appear to be gaining momentum, thanks to many factors such as increased sales effort, improved working conditions, higher salaries, and growing recognition of Iowa as an ideal place in which to bring up a family.

OUR TRAINING FACILITIES ARE ALREADY LARGE AND ARE GROWING

From a focal point in Iowa City, a broad health education effort covers the state. Our total education program compares favorably with that in most other states. At the University of Iowa, in the state's community colleges, in its area vocational-technical schools, in numerous of the state's hospitals, and in other settings, individuals are preparing for careers in the booming health-care field.

At the University of Iowa there are 36 instructional programs in the health field. The average total enrollment in these programs in recent years has been 2,350, with about 730 students receiving degrees or certificates each year. By the early 1970's, it is anticipated 4,000 full-time students will be enrolled in the University's health education programs.

The College of Medicine at the University, with 480 students, is one of the largest medical schools in the country. The number of medical school graduates has been increased by 80 per cent in 18 years, and it is scheduled to expand further with the completion of the Basic Sciences Building. The Colleges of Dentistry, Pharmacy and Nursing have a combined enrollment of about 900. A second College of Pharmacy exists at Drake University, and a 300-student College of Veterinary Medicine is located at Iowa State University.

In Des Moines, the College of Osteopathic Medicine and Surgery has an enrollment of 335, and it graduates approximately 90 osteopaths each year.

The state has three baccalaureate programs in nursing, 18 diploma nursing schools and two two-year associate-degree nursing programs. There are 20 approved schools of x-ray technology and 17 accredited schools for medical technologists. There are 22 instructional programs in practical nursing. The number of sub-baccalaureate health-occupations training programs has increased from two in 1957 to 43 in 1968 and the enrollment in these programs has grown from 75 to 1,223.

The foregoing statistics reflect a changing pattern—one of growth and progress. Yet, manpower heads the list of health-care problems.

FACILITIES FOR PATIENT CARE HAVE GROWN APACE

What about health-care facilities? Growth here has been significant. More than one-half billion dollars in health-facility construction has occurred in Iowa during the past two decades. There have been no fewer than 174 construction projects.

The growth of facilities is reflected in the current number of hospital beds for acutely-ill patients, in contrast to 20 years ago. There are 14,000 such beds now, approximately 6,000 more than in 1948. The improvement in quality of care is clear, even to the lay person, if he looks at the average hospital stays for various illnesses. In 1947, for instance, the average stay for an appendectomy was 14 days. Today, the usual hospitalization for this surgery is between four and six days.

Iowa has 146 general hospitals with close to a half-million admissions each year. In the vicinity of 27,000 persons are employed in these hospitals, representing an annual payroll of about 105 million dollars. Of the 146 licensed hospitals in Iowa, 76 are accredited by the Joint Commission on Accreditation of Hospitals. These 76 hospitals contain better than 90 per cent of the total number of beds.

A similar pattern of growth is evident in the nursing home field. Since 1959, 196 totally new nursing homes have been constructed in Iowa, representing 10,500 beds. Another 55 previously existing homes have built additions.

Paralleling the general socio-economic trend, in the past five or six years, there has been an emphasis on the modernization of the larger urban hospital, and a corresponding lessening of this activity in rural hospitals. In the earlier post-World War II period, more activity was centered on new hospitals in rural areas.

Statewide, coronary-care units, modern pathology and radiology facilities, intensive-care units, rehabilitation units, psychiatric-care units, etc., have been installed on a rather dramatic scale this past decade or so. The new equipment and the buildings to house it have been costly. The cost must be weighed carefully against the degree of utilization.

MANY FACTORS ARE RESPONSIBLE FOR THE RISE IN HEALTH-CARE COSTS

The subject of health-care costs is massive. It just is not possible to go into it in the deserved depth at this time. We know it is spiraling upward. We know the high labor content is a chief cause for the increasing cost. We know that hospital salaries have had some catching up to do. We are cognizant of the growing governmental involvement in the financing of health care. Ninety-six per cent of Iowa's population have some form of health-care coverage. Eighty per cent have insurance of a private nature, with Blue Cross-Blue Shield or with a private company. Governmental programs cover the remaining 16 per cent. The alarming impact of government on medicine is illustrated by the following. In 1950, five per cent of doctors' services were paid by public funds; this increased to six per cent in 1960; and the percentage jumped to 19 per cent in 1967.

Physicians, individually and together, have a responsibility to maintain efficiency to the fullest extent possible, but also they must not deprive the patient of the personal care to which he is entitled. Charges should be fair and equitable. Medical societies, in my judgment, must be aggressive and diligent in their surveillance of health-care costs. They should support the usual and customary concept; they should provide mechanisms for peer review; and they should encourage fee for service, among other basic principles.

HEALTH CARE MAY SOON BE ALL-ENCOMPASSING

Health care is being thought of more and more, in Iowa and elsewhere, in its broadest sense. When so considered, it encompasses much in addition to the delivery of personal health services. It embraces environment, public education, public health services, construction of facilities, training of manpower, research and so forth. Emerging from this more recent spectrum-wide interest in the physical and mental well-being of Iowans, is a concept known as comprehensive health planning. This newer activity certainly does not represent Iowa's first health planning. Over the years much time and effort have been expended by hospital trustees, medical staffs and others to determine what, within its economic capability, a community should provide in the way of personnel, facilities and equipment.

At the state level, there now are several new bodies to stimulate and coordinate health planning programs. The principal entries in this field are the IMS-inspired Health Planning Council of Iowa, the Comprehensive Health Planning Program, and the Iowa Regional Medical Program. Each and every Iowa physician should have some knowledge of these organizations and their activities.

CONCLUSION

All that I have set forth here this morning suggests that change has occurred and is occurring in the health-care field in Iowa. What kind of change? The change has begun to show urban trends, and those trends will undoubted'y continue. How much change? It has been dramatic to say the least when viewed over a period of two or three decades, the practice span of many of us. We certainly cannot reject the notion that more change is on the way.

Our task and responsibility is to see that any future change is guided and occurs in an orderly manner. With continued leadership from the medical profession, and with the informed support of all Iowans, the health-care challenges of today and tomorrow can be met. As physicians let us maintain the leadership, and let us direct changes into channels that will result in the very best of patient care—for this is our only reason for being.

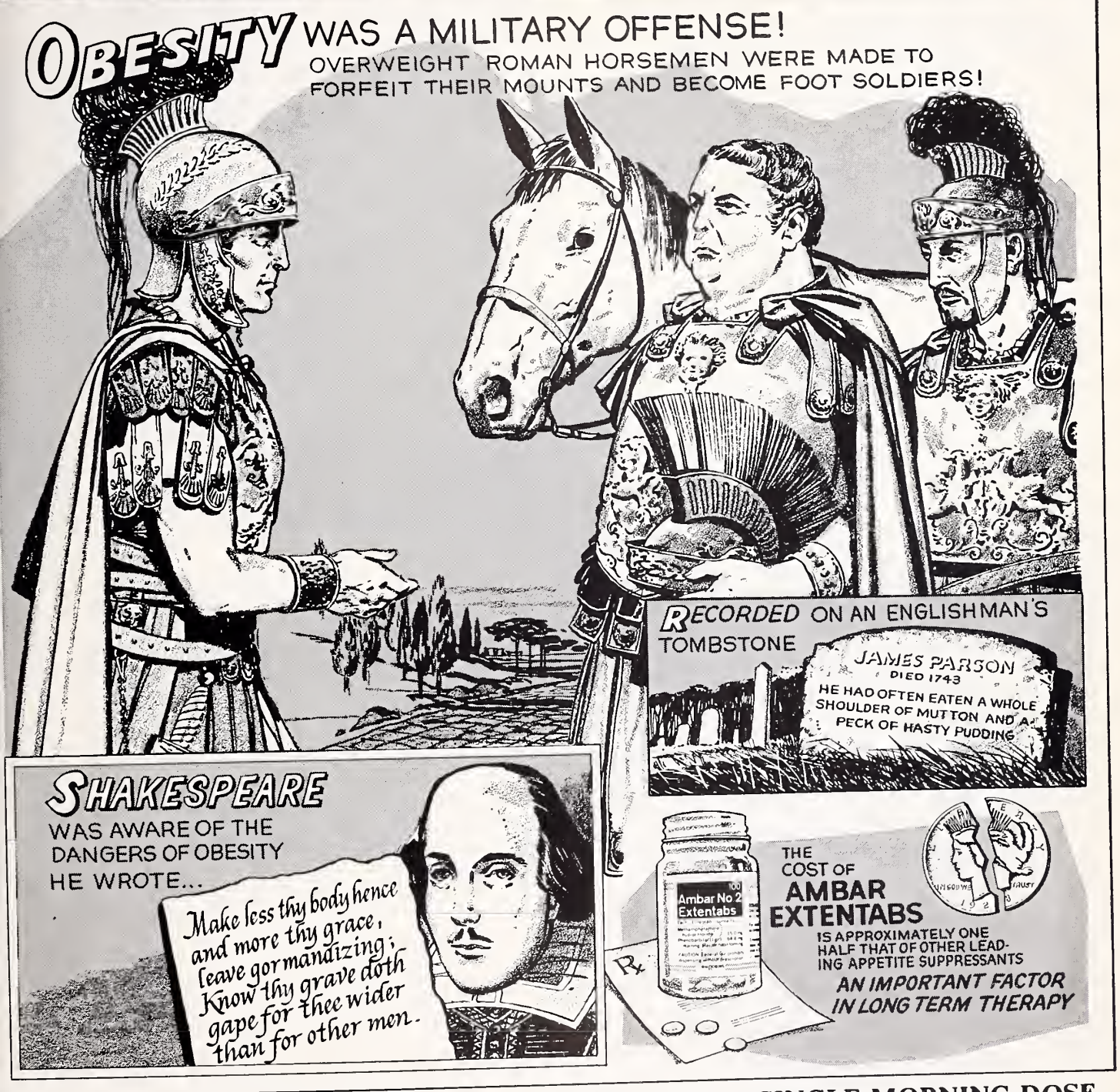
Safety Films for Lay Audiences

"Before the Emergency," a 28-minute documentary produced by Employers Insurance of Wausau, has been selected "Safety Film of the Year" by the National Committee on Films for Safety in Washington, D. C.

Written by P. F. Carspecken of Employers Insurance and produced for the company by Robert Geisel Studios of Wausau, Wis., "Before the Emergency" tells the story of inadequate and injurious care and treatment of accident victims due to the unpreparedness of most American communities. Lack of proper equipment in ambulances, lack of thorough education and training for crews, and lack of radio communication between ambulances and hospitals are cited as principal reasons for the unnecessary death of an estimated 20,000 accident victims each year and the permanent disability of approximately 25,000 more. Most startling of the information revealed is the fact that only six of the 50 states have subscribed to the minimum ambulance equipment regulations of the American College of Surgeons (which has endorsed "Before the Emergency"), only 13 states regulate ambulance operations, and just 18 states regulate personnel. Further, only one-fourth of all ambulance attendants in the U. S. have received any education in first aid. In many states a beautician is required by law to have acceptably completed more hours of training than those who attend to the injured victims of accidents.

A booklet on the subject of emergency care will be sent free to anyone who writes Employers Insurance of Wausau, Wausau, Wis. 54401. Color prints of "Before the Emergency" are available on loan to interested organizations that contact Modern Talking Pictures Corp., 1909 Prudential Plaza, Chicago, Ill. 60601.

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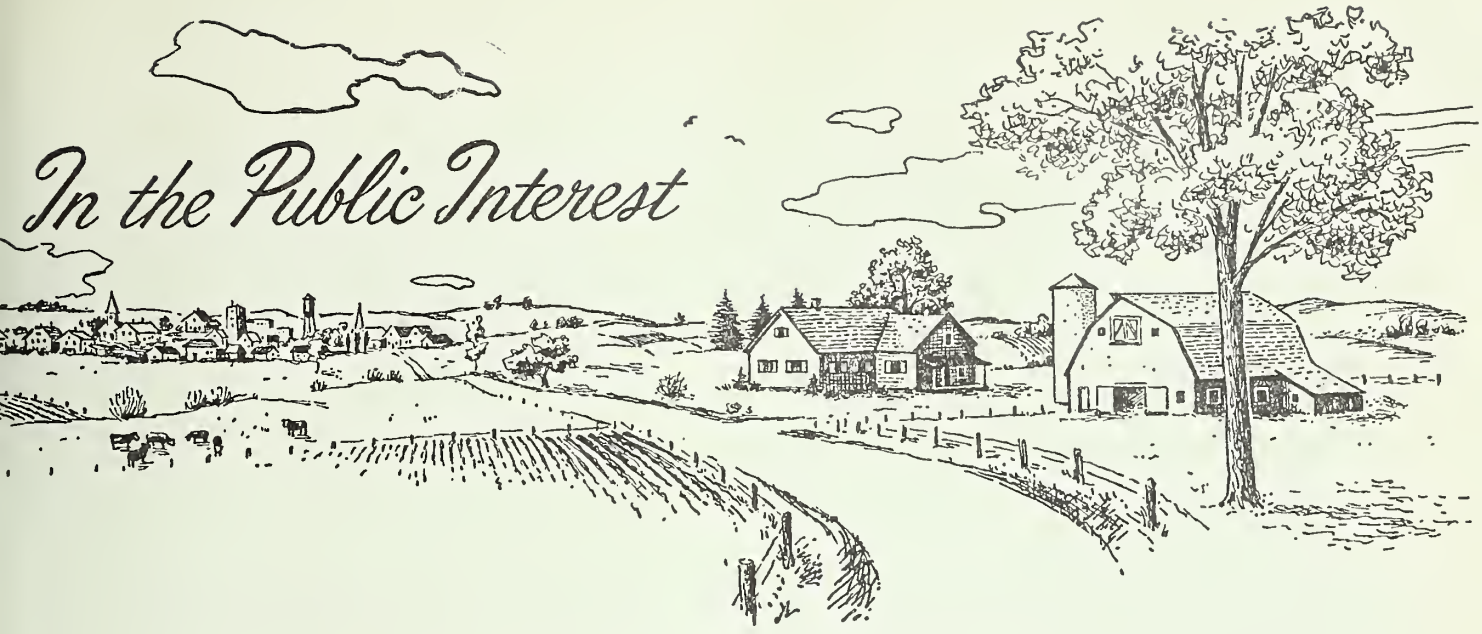
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The Iowa Medical Society Has Protested

The Threatened Imposition of A "Medicaid" Fee Schedule

Early in June the Iowa Medical Society's president wrote to HEW Secretary Robert Finch expressing the deep concern of Iowa physicians over published reports that his Department intended to change the basis for "Medicaid" reimbursements to the states, effective July 1.

The HEW plan, calling for a reduction in "Medicaid" payments, had first become known in April through statements attributed to HEW Under Secretary John Veneman, of which the following is the gist: To limit further increases in costs, payment schedules will be established for doctors and dentists based on the prevailing Blue Shield payment plans for non-government medical service.

Subsequently the HEW set up a task force to search for a means of improving the fiscal picture for "Medicaid." Reports on its work have not been encouraging, and as the July issue of this JOURNAL *goes to press it is still uncertain whether any new "Medicaid" reimbursement regulations will be issued on or as of July 1.*

Because the IMS president's letter sets forth the Iowa physicians' position in forthright terms and establishes a clear record regardless of what action the federal government may take, we publish it here in its entirety.

June 10, 1969

The Honorable Robert Finch
Secretary of Health, Education, and Welfare
Washington, D. C.

Dear Secretary Finch:

The physicians of Iowa are deeply interested in the federal-state Title XIX (Medicaid) Program. We have had a Title XIX Program operative in Iowa since 1967 and we are anxious to see it work effectively, to serve the health care needs of those low income individuals and families for whom it is intended. These facts prompt my letter to you.

We have read and studied carefully the recent newspaper accounts which tell the intent of the Department of Health, Education, and Welfare to revise its Medicaid physician reimbursement policies. We are extremely concerned about this action; we cannot help but view it as untimely and inadvisable. The immediacy of the announced implementation, too, is disconcerting. The July 1, 1969, date reported in the press affords little opportunity to discuss with the actual providers of service the ramifications of this action, or for the development of possible alternatives. We regard this exchange of information and opinion as a vital forerunner to a major modification such as this, a modification which is certain to have a broad and significant impact on the total Medicaid Program.

Just how much participation there has been by private practicing physicians in any discussions which preceded Under Secretary Veneman's announcement of the proposed fee reductions is, of course, unknown to those of us in Iowa. On the surface we are able to view it only as a unilateral action, an action which seems certain to threaten the cooperative spirit which most physicians have demonstrated. At least I offer this as the prognosis for the state of Iowa; we submit to you that the private practicing physician finds considerable difficulty in accepting this kind of governmental administrative edict.

In Iowa—as is the case all across the nation—Title XIX is barely beyond gestation. The start of the program came following careful consideration and passage of state enabling legislation. In Iowa's enabling act the designated state agency is instructed to "take such action as may be necessary to assure that licensed practitioners of the healing arts who provide professional services under this chapter shall be paid their reasonable, usual and customary fees."

As you can perceive from the preceding, the Iowa Medical Society has been a strong proponent of the individual usual and customary fee philosophy. The concept remains a basic principle of the Society even though some artificial measures, e.g., prevailing, reasonable, have appeared and have forced some much-resisted erosion.

With respect to Title XIX, the designated state agencies, the selected carriers and the providers of services have exerted maximum energy to get state programs off the ground. This is the case if the state of Iowa represents any kind of a barometer. In many large programs, such as Title XIX, initial emphasis is on production; refinements and efficiency come later, gradually and with deliberate study. We believe this to be the case with Medicaid.

Because the period of Tile XIX refinement is only now beginning, we feel strongly that the announced intention of the Department to invoke a nationwide fee reduction is premature and inadvisable. Rather, at this early juncture, we believe the individual states should be permitted the opportunity to examine their individual problems and seek appropriate solutions. As an example of the creative thinking which is going on, officials in Iowa, including the governor, have engaged in some preliminary discussion as to the feasibility and desirability of making the state's Medicaid program available to private contractors on an underwritten basis.

In addition, a careful study of the Iowa Medicaid program has been requested by the 1969 General Assembly as a further means of identifying problem areas and eliminating possible inefficiencies. This will take place during the coming several months. Too, we understand from our Senator Jack Miller that he and his colleagues on the Senate Finance Committee will participate later this summer in an in-depth study of Medicaid. Because important and worthwhile evaluations such as these are contemplated, the physicians of Iowa find further cause to believe the imposition of fee reductions on July 1 would be most inappropriate.

Please be assured that Iowa physicians—as are most Americans—are vitally interested in the prudent use of tax dollars and in efficiency and economy in government-paid health services, and in all health services for that matter. Combined, too, with this priority interest in fiscal soundness is the unwavering dedication of Iowa's doctors to the high ethical values on which the profession is built, to the elements of integrity and principle.

To this end the Iowa Medical Society has devoted much of its recent effort and expertise to building a program which seeks to protect against any intentional or unintentional abuse associated with the delivery of health care. The Society has constructed a statewide review system to investigate and make strong recommendations in cases where over-utilization or over-charging are suspected and reported to the Society. This peer review concept has been used to excellent advantage in resolving questions which have arisen in a variety of third-party programs. The Society has offered and strongly advocated (for a number of months) the use of its review system in the Iowa Title XIX Program. We understand now that such use of the review system will begin on July 1. We believe strongly that the broad application of this professional peer review system will do more than any single thing to maintain the fiscal soundness and assure the success of Medicaid. We recognize and accept the challenge inherent in a program such as this.

These matters of usual and customary fees and peer review were paramount in the thoughts of Iowa Medical Society officers as they participated in the enactment of Medicaid enabling legislation and as they now consider the development of this program. Also well imbedded in their minds is the intent of the federal government with respect to the payment of health care services. Former Secretary John Gardner expressed it clearly in a 1967 report to the President when he said: "Charity medicine is being abandoned in favor of new public programs which give needy people the resources to purchase medical care from private physicians and hospitals on the same basis as more affluent citizens."

We have repeatedly conveyed the impression to Iowa doctors that this represents the thinking of the federal government with respect to its involvement in the payment of health care services. We have come to believe, additionally, that elements of control, if needed, are to be determined and implemented at the local level with involvement by all concerned parties. Now we are confronted with a new dilemma.

If the arbitrary and unilateral decision federally to curtail physicians' fees occurs July 1, it will constitute a serious breach of faith in our judgment. It will be extremely difficult for the Iowa Medical Society to make a case to the public and to its membership which will be acceptable and which will permit the continuation of Title XIX in Iowa on a broad and optimistic basis. It is my distinct belief that the Society will continue with an unaltered policy position, i.e., to recommend cooperation based on the original commitment, namely, that the usual, customary and reasonable concept be maintained with the understanding that the profession will use its full facilities to safeguard against any and all kinds of abuse.

It is anticipated the Iowa Medical Society will ask for the opportunity to present its point of view at the aforementioned hearings of the Senate Finance Committee, which are understood to be planned later this summer. Along this line, the Society would he happy to share with you or with any of your colleagues in a personal discussion of this most important area. As we see it, the future of Medicaid and all government health care programs is dependent upon meaningful discourse between the principals. We trust you share this feeling and we hope you will find it possible to defer the curtailment scheduled to commence July 1 for more detailed analysis and discussion.

We would be pleased to have your views on this subject and we stand ready to provide any further counsel you may request.

Sincerely yours,
W. M. Krigsten, M.D.
President

WMK: cb

cc: Jack Miller, U. S. Senator, State of Iowa
Francis L. Land, M.D., Commissioner, Medical Services Administrator, Department of HEW
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Scientific Articles

Evaluation of the Hall Method for Determining Minimum Wrestling Weights

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To paraphrase Mark Twain, for years physicians, coaches and other educators have discussed the health problems associated with wrestlers' "making of weight" without doing very much about resolving them. During the past year a series of events and circumstances prompted the Iowa Medical Society's Committee on Sports Medicine and the Iowa High School Athletic Association to consider seriously whether it was scientifically possible to determine permissible "wrestling weights" for high school students having various body conformations.

The need for establishing "wrestling weights" was brought to attention in December, 1967, when members of the Muscatine County Medical Society adopted a resolution recommending that the Muscatine schools abandon competitive wrestling.[1] The resolution reflected the physicians' concern about practices which they understood were being used to enable high school wrestlers to "make weight"—practices that could be hazardous to the health of growing boys. Their action achieved its purpose, for local and national reaction was instantaneous. Medical, educational and athletic organizations were deluged with requests for opinions, positions and comments on the matter.

The IMS Committee on Sports Medicine acknowledged that certain practices used to enable wrestlers to "make weight" could be hazardous. However the members felt the values associated with interscholastic wrestling necessitated that the IMS take a positive approach toward the sport. In addition, they expressed the opinion that determining the ideal body weight for any boy should be the tripartite responsibility of his parents, his coach and his physician.[2]

In January, 1968, the governing board of the IHSAA resolved, that "in 1968-1969 a physician be involved in determining the minimum weight at which a boy shall wrestle during the season."[3] That resolution was seriously deliberated by the IMS Committee because approximately 6,000 students were members of the wrestling squads of 260 or more high schools, and participating in the program might take substantially more time than physicians throughout the state could provide. Moreover, the members felt that an in-depth study of the problem was necessary before the IMS could endorse any standards.

At that time, the anthropometrical method of D. M. Hall[4] was proposed as a means of establishing the "minimal weight" at which an individual should wrestle. The Hall method calls for five body measurements—standing height, chest width, chest depth. hip width and

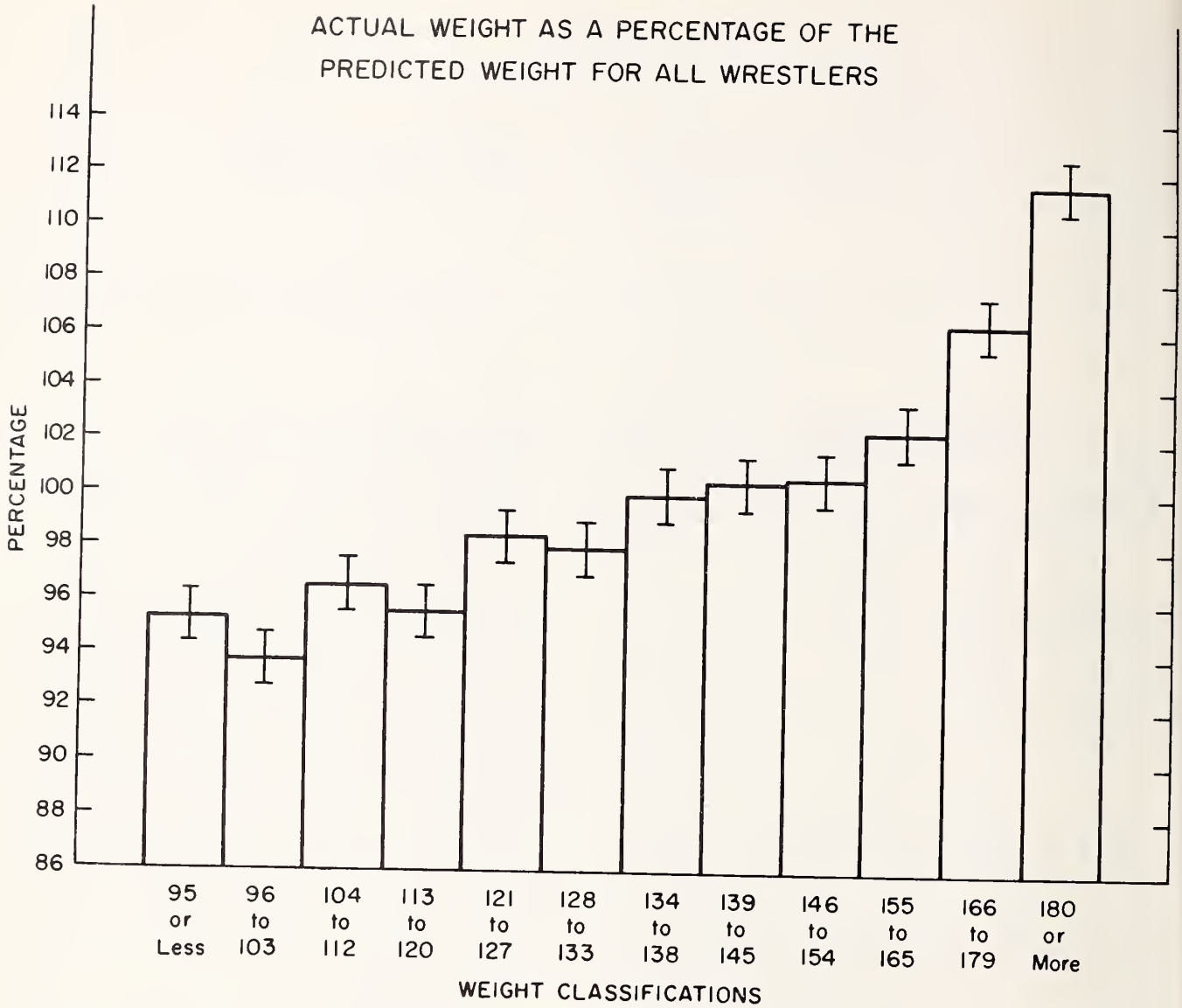


Figure 1. Evaluation of the actual and "predicted" weights for 282 wrestlers. Means and standard deviations are indicated.

thigh circumference—and for the application of an equation that uses those dimensions to indicate the proper or ideal weight for each boy. The Hall method was selected over other possibilities, e.g., K^{40} determinations, body density, skinfold, Behnke's anthropometric method, etc., because it had been used for more than 20 years in Illinois to predict the "desirable" weights for some 30,000 or 40,000 4-H Club members between the ages of 10 and 18 years. Furthermore, the multiple regression equation employed in the Hall method had been developed on the basis of a "physically fit" population, and had been frequently reevaluated and revised. In addition, its application did not require extensive or complicated equipment or necessitate prolonged training for those who were to use it.[5]

To ascertain whether the Hall method was appropriate and suitable for use on wrestlers, the principal author measured 163 junior and senior high school wrestlers from the Iowa City area, and 119 finalists in the 1968 championships at Waterloo. The findings are summarized in Table 1. The high correlation co-

TABLE 1

EVALUATION OF THE HALL METHOD TO PREDICT THE BODY WEIGHTS OF IOWA CITY AND CHAMPION WRESTLERS

Number	Actual Weight Pounds	Predicted Weight Pounds	Correlation Coefficent
282	133.3 ± 1.7	133.3 ± 1.4	.95

Values are means and standard deviations from the mean.

efficients between the boys' actual weights and the weights that the Hall method indicated were desirable for them showed that the Hall method had a potential for determining minimum wrestling weights. However a close inspection of the data revealed that the figures obtained by the Hall method were consistently lower than the actual weights of the boys in weight classes higher than 154 pounds.

Figure 1 provides a comparison between actual weights of the 282 wrestlers and their "predicted" weights, on a percentage basis by weight classes. The IMS Committee and the IHSAA reviewed these findings and agreed that additional investigations were necessary and that an improved equation must be developed before any recommendation could be made concerning the use of the Hall method on a larger scale in Iowa. The essence of those points was endorsed by the IMS House of Delegates on May 1, 1968.

With financial support from the IHSAA and administrative assistance from Mr. Bernard Saggau, its executive secretary, we conducted a study involving 30 high schools and more than 700 individuals who had been certified for competitive wrestling in 1968-1969. Each high school that participated sent one or more representatives to Iowa City, where they were trained in the use of the Hall method. Then the necessary calipers and measuring tapes were provided to the schools by the IHSAA. During the first two weeks of November, 1968, all candidates were measured, and the results were forwarded to Iowa City for computer analysis. Within 10 days following submission of the data, each high school received a listing that included each boy's actual weight, his "desirable" weight, and the minimum weight at which he might wrestle. The minimum wrestling weight was 7 per cent less than the "predicted" weight if the "predicted" weight was between 95 and 154 pounds. On the other hand, if the "predicted" weight was 155 pounds or higher, the minimum wrestling weight was only 3 per cent less.

Those limits were selected not only because the findings at Iowa City and Waterloo in the



Figure 2. Changes in body weights of 747 individuals during an average of 17 days. All data were obtained from high school students who were certified to wrestle by IHSAA procedures.

TABLE 2

EVALUATION OF THE HALL METHOD TO PREDICT WEIGHTS FOR CERTIFIED WRESTLERS IN THIRTY HIGH SCHOOLS

Number	Actual Weight Pounds	Predicted Weight Pounds	Correlation Coefficent
747	142.2 ± 1.0	140.1 ± 0.7	0.93

Values are means and standard deviations from the mean.

spring of 1968 had shown significant discrepancies between the heavier boys' actual weights and the weights determined for them by the Hall method, but also because of findings which indicated that a weight loss in excess of 10 per cent resulted in a profound loss of strength, endurance and motor performance.[6, 7]

Six per cent of the wrestlers who had been measured lost more weight than the Hall method indicated that they should, and those individuals had to be examined by their respective family physicians before becoming eligible to compete. All were permitted by their physicians to wrestle during 1968-1969.

Preliminary results of the 1968-1969 study are summarized in Table 2. Although they have not been extensively analyzed, they seem to provide further indications that the Hall method will be useful in establishing "wrestling weights." Currently two aspects of the Hall method are being examined, the equation that is employed and the validity of the results. We are developing different equations that promise to be more satisfactory in determining proper weights for the heavier individuals. We are also testing procedures that employ underwater weighing,[8, 9] Behnke's anthropometric technique[10, 11] and skinfold measurement.[12] If possible, we want to secure K^{40} measurements of some of our subjects.

Figure 2 shows changes in body weight that occurred between the initial weighing and the certification that occurred in November or early December, 1968, in a period of approximately 17 days. We believe these results show that certain individuals lost more weight than was desired in that short interval. At present we do not know whether those losses occurred under medical supervision or after medical advice.

The magnitude of those weight losses was of concern to the Committee and to the ISHAA, and two corrective measures are currently being considered: (1) lengthening the interval between the end of the football season and the first weight-taking for wrestlers, and (2) establishing the boys' "wrestling weights" eight to 10 weeks before certification.

The problems associated with "making of weight" continue to plague physicians, coaches and other educators. They were dramatized by the press in 1967-1968, but they continue in 1968-1969. The IMS Committee and the IHSAA have tried to find ways to minimize and reduce these problems and to develop meaningful guidelines for parents, coaches, physicians and students. Further studies will determine the effectiveness of their efforts.

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Hemorrhagic Stroke: Surgical Treatment

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THE WORD *stroke,* in common medical usage, refers to an abrupt intracranial phenomenon producing a variety of disturbances. When it is used to identify someone who has sustained an insult to the brain, as in the expression "stroke patient," it can mean any one of many things. Usually it means that the individual has encountered a catastrophic event of variable severity, affecting a part of his brain and characterized by various neurologic symptoms or deficits. Its result may be a mild spell of "dizziness," a transient speech or vision disturbance, or in a more severe case a profound hemiplegia, aphasia or hemianopsia, separately or in combination. The cause usually is an occlusive phenomenon affecting a specific cerebral artery. Also, the term *stroke* is commonly applied to a patient who has had a subarachnoid hemorrhage which may not be, or an intracerebral hemorrhage which usually is, associated with a neurologic impairment.

The present discussion is to deal with the more violent "strokes"—ones which are due to rupture of a cerebral blood vessel, at times producing a clinical picture similar to that which is caused by occlusion, but associated with bleeding into the subarachnoid space or into the brain itself.

The Cooperative Study of Intracranial Aneurysms and Subarachnoid Hemorrhage,[1] in which the case histories of some 6,300 subarachnoid hemorrhage patients were studied, determined that hemorrhage had been due to a ruptured intracranial aneurysm in 51 per cent of the patients. In 15 per cent subarachnoid hemorrhage was associated with hypertensive cardiovascular disease, and in another 6 per cent the bleeding was due to the rupture of an arteriovenous malformation. In another 6 per cent the hemorrhage was associated with various lesions such as bleeding brain tumor, blood dyscrasias, metastatic disease, etc. In the remaining 22 per cent no cause for the bleeding was found. Intracranial aneurysm, then, is the commonest and most easily identifiable lesion producing spontaneous subarachnoid hemorrhage.

The rupture of an aneurysm is the commonest cause of intracranial bleeding, but it is not the commonest cause of early death in such patients. The mortality for the initial aneurysmal bleed is said to be 10 to 15 per cent, but probably it is closer to 20 per cent if one counts the patients who fail to reach the hospital before dying. Hypertensive disease accounts for 52 per cent of deaths that occur within 72 hours following the onset of spontaneous intracranial bleeding. When bleeding is due to aneurysmal rupture, the mortality is 26 per cent. The patient who has bled from an aneurysm and appears to have recovered carries with him a serious risk of a second such episode. For the first three weeks after the initial bleed the risk is about 30 per cent—10 per cent in the first week, 12 per cent in the second, and 7 per cent in the third. The greatest threat is at the end of the first week, and after the third the risk falls off abruptly. The risk of re-bleeding is generally highest for an aneurysm on the anterior communicating artery, next highest from an aneurysm on the internal carotid artery, and least from one on the middle cerebral artery. For 28 days following the initial hemorrhage, the chance of re-bleeding from those sites is 30-40 per cent. The mortality rate for a second aneurysmal bleed is about 42 per cent for those sites, a figure considerably higher than that associated with initial hemorrhage (10-20 per cent, as determined by autopsy, angiography or operation for hematoma). These forbidding figures impress one with the urgency of treating the bleeding aneurysm patient promptly and deliberately. The problem

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is not a simple one, however, for safe, early and effective treatment is frequently made impossible by the very nature of the disease.

When interest in subarachnoid hemorrhage and intracranial aneurysm developed, some 15 or 20 years ago, it became apparent that any one neurosurgeon or neurologist would be likely to see only a relatively small number of aneurysm patients in his lifetime. It was similarly evident that the many variables bearing on the problem of bleeding aneurysm made it impossible for any one man to make a critical assessment of a representative number of aneurysm patients. For this reason the neurologists and neurosurgeons at 24 centers in the United States and abroad undertook a cooperative study and collected a formidable mass of information from patients with subarachnoid hemorrhage and intracranial aneurysms. Statistics were meticulously managed by experts in an effort to get specific and meaningful answers to what, on first consideration, seemed simple questions. Some answers, however, were not easily obtained, and many were not obtained at all. During this discussion some references will be made to, and at times conclusions drawn from, the analyses made in that cooperative study.

An intracranial aneurysm usually manifests itself by spontaneously rupturing and producing a subarachnoid hemorrhage. Less commonly it produces the signs of nearby cranial-nerve compression, and uncommonly it produces those of an expanding intracranial process.

CONSERVATIVE TREATMENT

The conservative treatment of bleeding aneurysm initially consisted of a prescribed period of absolute bedrest under basal conditions, and carried a high mortality. However conservative treatment was frequently thought necessary because the patient was so seriously ill that surgical treatment seemed contraindicated. Second, it was preferred by some neurologists who were not convinced of the effectiveness of surgery, and by some neurosurgeons who were inexperienced in the vagaries of aneurysm surgery. Last, conservative treatment was employed in patients whose peculiarities or anomalies of the intracranial circulation made definitive surgical treatment too hazardous.

Hypotension and hypothermia were later added as adjuncts to bedrest treatment. Such conservative treatment had, and still has, considerable support. Bedrest was criticized as really being no treatment at all, but although they considered it undesirable, neurosurgeons interested in a definitive approach to the aneurysm problem had no better way of carrying the patient to a point where an operation could be accomplished under the best conditions. This waiting period, however, was one of anxious uncertainty, during which an unpredictable and frequently a fatal aneurysmal rupture might occur. Because of the high mortality associated with conservative (non-surgical) treatment, there was, on the part of many neurosurgeons, an increasing conviction that only a surgical approach to the aneurysm problem could lessen the mortality. However there still is considerable difference of opinion as to whether intracranial aneurysms, especially those that have ruptured, can be best treated surgically in most instances. McKissock *et al.*,[2] on the basis of their extensive experience with intracranial aneurysms, have indicated that surgical treatment has not been proved superior to conservative treatment for *all* aneurysms under *all* conditions. Other neurosurgeons completely disagree. Both the surgical and the non-surgical schools offer strong arguments. It is my opinion that in carefully selected patients surgical treatment is preferable and offers the patient a greater chance for useful survival and for a cure of his lesion. Yet, admittedly, how best to treat *all* aneurysms under *all* conditions—especially ones that have ruptured, remains unknown.

SURGICAL TREATMENT

Surgical treatment is directed primarily toward the prevention of recurrent hemorrhage. Although a patient may survive one or more bleeds, he continues to carry the potentially lethal lesion in his head, unless the aneurysm itself is attacked.

The two methods of treating intracranial aneurysms surgically are the "indirect" and the "direct." The "indirect" operation consists of occluding the common carotid or extracranial internal carotid artery. Occlusion of the carotid is expected (1) to reduce the water-hammer effect of the pulsating column of blood on the aneurysm, (2) to reduce the intra-aneurysmal pressure, and (3) to reduce the intra-aneurysmal blood flow, thereby hopefully inducing thrombosis and fibrosis of the aneu-

rysm. Although one might expect such events to occur in a carotid-artery aneurysm, they have been thought less likely to occur in aneurysms distal to the intracranial carotid bifurcation. It had long been known that proximal carotid-artery ligation would reduce the pressure within the carotid distal to the ligation, at least temporarily. In 1952, however, Bakay and Sweet[3] showed, by direct intravascular-pressure measurements made at the time of craniotomy, that pressures distal to the internal carotid artery bifurcation could be reduced by extracranial carotid occlusion. The distal intracranial carotid pressure was thus reduced to equal the pressure immediately distal to the site of occlusion of the cervical carotid. Of course it has been difficult to make long-term post-occlusion studies by direct cannulation of the carotid artery. However ophthalmodynamometry has confirmed that reductions in carotid-artery pressure *can* be maintained. Christiansson[4] studied the retinal-artery pressure in 13 patients on whom carotid ligation had been performed, and found eight who had maintained pressure reductions of 20 or more per cent for periods ranging from one to 13 years following surgery.

It is difficult to assess the effectiveness of carotid occlusion in the treatment of an intracranial aneurysm. One assumes that occlusion affects an aneurysm in some way, and thus prevents a re-bleed. However one can reasonably state that the ligation has failed only if the patient re-bleeds. Conversely, if the aneurysm does *not* re-bleed, one cannot say that ligation has prevented a recurrence. The difficulty lies in the fact that there is no way of knowing whether or when the aneurysm may re-bleed, regardless of whether it has been treated definitively. Second, some aneurysms must "cure themselves," either by fibrosis at the rupture site or by a complete thrombosis of the lesion. How often this occurs is unknown. Tindall *et al.*[5] made long-term occlusion studies in 58 patients with internal carotid artery aneurysms. Postoperative angiography was made from one day to four years after the operation. In 17 cases (29 per cent), the aneurysm was not visualized. In 26 instances (45 per cent) the aneurysm was reduced in size, and in 14 patients (24 per cent) it remained unchanged in size. In the Cooperative Study,[1] 141 patients with single aneurysms at the three most common sites underwent postoperative angiography. In 50 per cent the aneurysm was not visualized. In 20 per cent it was smaller, and in 13 per cent it was unchanged in size. In 2.4 per cent the aneurysm was larger, and in 14 per cent the size was not recorded.

For an accurate appraisal of the final result of treatment, one would need to have controls, in each of whom the some conditions existed and the lesion was left untreated. This information we do not have. Further, it is necessary to define effective and successful treatment as carefully as possible. Our definition of successful treatment includes a measured drop in intravascular pressure and no recurrence of bleeding from the aneurysm. The objection to that definition is that the blood-pressure drop may not be a permanent one. Further, we do not know how many occluded carotid arteries have remained so. Blood flow has been reestablished through occluding devices such as adjustable clamps and through carotid arteries which have been ligated in continuity. Failure to visualize an aneurysm or an apparent reduction in size has occurred in some instances where occlusion was known to have been incomplete, as well as in cases where the clamp had to be opened because of ischemic complications. One would then have to classify such an operation as a failure. Under such circumstances, however, if a patient recovered from a neurologic deficit incidental to the bleed, or if he did not re-bleed, the operation would have to be classified as a success. A reasonable assumption under such circumstances is that regardless of the degree of permanence, some change did take place in the aneurysm incident to the occlusion. But it is impossible to say this with absolute certainty.

RESULTS OF TREATMENT BY CAROTID OCCLUSION

Figure 1, taken from the Cooperative Study,[1] shows that carotid occlusion was carried out in 685 instances of ruptured aneurysm, and treatment was considered successful in 385, or 56 per cent of them. Of those 385 patients, 376 tolerated carotid occlusion, were alive and were gainfully employed at the time of the last report. Nine patients who recovered from the bleeding insult and tolerated permanent occlusion died from unrelated illnesses after be-

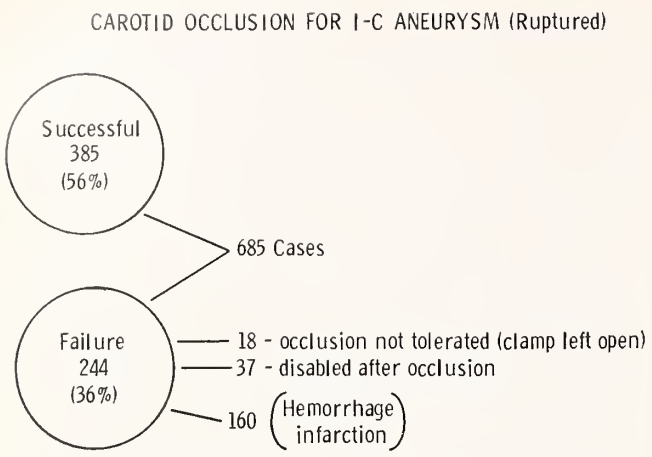


Figure 1. Results of treatment of intracranial aneurysms by occlusion of the carotid artery in the neck. (Hiro Nishioka, M.D.[1])

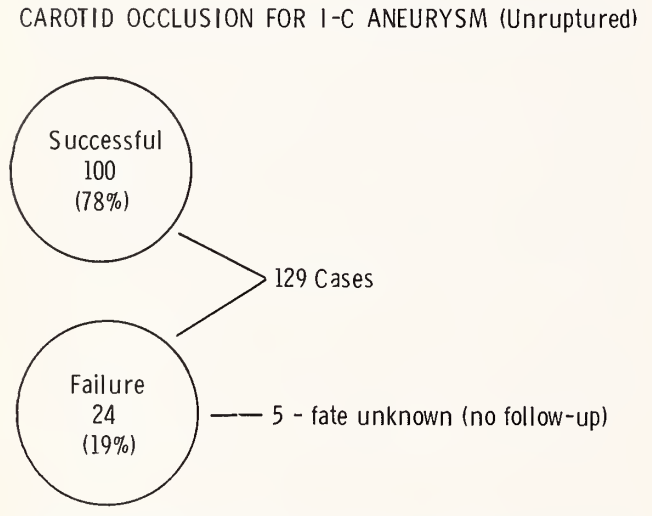


Figure 2. Results of treatment of intracranial aneurysms by occlusion of the carotid artery in the neck. (Hiro Nishioka, M.D.[1])

ing discharged from the hospital. Treatment failed in 244 patients (36 per cent). One hundred sixty died as a result of recurrent hemorrhage or ischemic infarction. Twenty-nine underwent subsequent intracranial surgery because carotid occlusion had failed, and 13 of them died. In 18 patients the artery had to be left open because they were unable to tolerate occlusion. The remaining 37 patients were left disabled after the occlusion, and were unemployable. Twenty-five of them were capable only of self-care, and the other 12 remained bedridden. The fates of 56 patients (8.2 per cent) are unknown. Forty-four of them left the hospital alive, but were lost to follow-up. Twelve died of unknown causes.

As indicated in Figure 2, the prognosis for patients with unruptured aneurysms is much better. Treatment in 129 cases of *unruptured* aneurysm was considered successful in 100 instances (78 per cent), and 97 of those 100 are alive and improved. The other three, although satisfactorily treated, died of unrelated disease. Treatment failed in 24 patients (19 per cent). Seven patients died—three from verified re-bleeding, two from presumed re-bleeding and two from cerebral infarction. Seventeen patients were still alive, but four were unable to tolerate occlusion. Nine either failed to improve or experienced a progression of their neurologic deficit. Four patients withstood only partial occlusion. The patient's status in each of five cases (3.9 per cent) is unknown. Four of them left the hospital in satisfactory condition, but have not been reported upon since their discharge. The other one died a

TABLE I

INCIDENCE OF EARLY MORTALITY AS A FUNCTION OF THE SITE OF THE ANEURYSM(S) AND THE PRESENCE OR ABSENCE OF SUBARACHNOID HEMORRHAGE[1]

	Subarachnoid Hemorrhage			No Subarachnoid Hemorrhage		
Aneurysm Site	Patients with Carotid Occlusion	Mortality Number	Mortality Per Cent	Patients with Carotid Occlusion	Mortality Number	Mortality Per Cent
Internal Carotid	410	90	22	111	3	2.7
Middle Cerebral	47	16*	34	4	—	
Anterior Communicating	104	31	30	2	—	
Multiple	94	20	21	12	—	
	655	157	24	129	3	

* One patient underwent occlusion of both internal carotid arteries. Excluding that case, the mortality is 32 per cent.

year after his operation, and the cause of his death is not known.

MORTALITY FROM CAROTID OCCLUSION

The early mortality from carotid occlusion, as related to the site of the aneurysm and the presence or absence of subarachnoid hemorrhage, deserves comment. Table 1 shows that the mortality for the three main aneurysm sites ranges from 22 per cent for the internal carotid to 34 per cent for the middle cerebral artery. It is difficult to attach any significance to the variation, since the indications for operation are different for the three sites. Carotid ligation was used with far less frequency for aneurysms of the anterior communicating artery than for aneurysms of the internal carotid artery, even though it was done electively for most anterior communicating-artery aneurysms. In cases of middle-cerebral aneurysm, it was frequently used as the last resort. Further, the more severe the illness, the greater the mortality from carotid occlusion. The shorter the elapsed time from bleeding to operation, the greater the incidence of ischemic complications. Table 2 shows that as a function of aneurysm site there was no appreciable difference in the incidence of ischemic insult resulting from carotid occlusion.

RE-BLEEDING AFTER CAROTID OCCLUSION

Table 3 indicates that rebleeding occurred in 46 (8 per cent) of 577 patients who experienced complete and permanent carotid occlusion. Moribund patients were excluded because it was virtually impossible to determine whether such people had had re-bleeds. Of the 46 re-bleeds, seven were from aneurysms other than those for which occlusion had originally been done.

THE "DIRECT" OCCLUSION

In the "direct" operation, the aneurysm itself is attacked. The only way to be sure of curing an aneurysm is to remove it from the circulation, and that usually can be accomplished only by attacking it directly. Although this technique is desirable, precise and indeed ideal, it cannot always be accomplished. Because of the risk of disturbing a vital part of the circulation, it may be necessary or expedient, for example, to reinforce the aneurysm wall. Trapping the lesion by isolating the aneurysm intracranially with a ligature or clips, or with combined intracranial and extracranial ligatures, may necessitate sacrificing a major arterial trunk, but may be the only safe way to manage the aneurysm at the time it is exposed. Certainly this involves a risk, but it is one which must be weighed against the danger of recurrent and perhaps fatal hemorrhage. A planned, definitive procedure may have to be abandoned at any moment in favor of another that is better suited to the circumstances which prevail. For example there may be an aneurysmal rupture or an evident risk of compromising the circulation of the hemisphere. More esoteric and sophisticated techniques are being developed for inducing intra-aneurysmal clotting. They include the injection of horsehair into the aneurysm itself, the insertion of a coagulating-needle electrode into the aneurysm, and the introduction of iron particles into the circulation and holding them within the aneurysm by means of a magnetic field, thereby

TABLE 2

INCIDENCE OF ISCHEMIC NEUROLOGIC DEFICIT FROM CAROTID OCCLUSION AS A FUNCTION OF THE SITE OF THE ANEURYSM[1]

Aneurysm Site	Total Cases	Ischemic Neurologic Deficit Number	Per Cent
Internal Carotid	408	146	36
Middle Cerebral	45	17	38
Anterior Communicating	101	29	29
	554	192	35

This tabulation includes ruptured single-aneurysm cases only.

TABLE 3

INCIDENCE OF SUBARACHNOID HEMORRHAGE AFTER CAROTID OCCLUSION[1]

	Total Cases	Post-Occlusion Subarachnoid Hemorrhage Number	Per Cent
Ruptured Aneurysm			
Internal Carotid Occlusion	51	5	9.8
Common Carotid Occlusion	526	41	7.8
	577	46	8.0
Unruptured Aneurysm	86*	3	3.5

* Excludes patients having only intracavernous internal carotid aneurysms.

inducing thrombosis within the aneurysm itself.

RESULTS ACHIEVED BY THE "DIRECT" OPERATION

The literature on aneurysm is replete with confusing reports of the results achieved through the intracranial ("direct") operation. Many authors are not specific enough, failing to recognize the imponderable variables. It is pointless to speak in generalities about the success or failure of aneurysm treatment, for the characteristics of a specific aneurysm at a specific site, and the conditions under which it is treated, raise questions and problems that are not applicable to other aneurysms and their management. It is impossible to compare unlike things. One cannot, for example, compare the treatment of aneurysms of the anterior communicating artery with the treatment of aneurysms of the internal carotid or of the middle-cerebral artery. The problems are entirely different. Some of the many variables are the presence or absence of rupture, the neurologic defect, the age and sex of the patient, the time at which the operation is done and—most important—the condition of the patient at the time of operation.

TABLE 4

MORTALITY RATES FOR INTRACRANIAL SURGERY IN THE TREATMENT OF ANEURYSMS FROM THE LITERATURE[1]

Authors	Intracranial Operation Only		Intracranial Operation Plus Cervical Carotid Ligation	
	Total Cases	Deaths	Total Cases	Deaths
Bassett et al. '52	25	10	18	9
Dandy '44	13	4	12	1
Falconer '50	6	—	13	1
Graf '55	43	24	12	1
Hamby '52	15	13	9	2
Hunt et al. '62	63	9	—	—
Jaeger '50	20	5	—	—
Mount '51	21	4	—	—
Norlén and Olivecrona '53	78	10	—	—
Pool and Potts '65	84	4	—	—
Poppen and Fager '60	93	15	26	3
Rowe et al. '55*	32	7	2	—
Steelman et al. '53	25	2	17	—
Total	518	107	109	17
Average Mortality Rate		21%		15%

* These authors did not indicate whether all of the seven deaths were among patients subjected to intracranial surgery only.

Table 4 summarizes several reports that have dealt with the mortality in a total of 627 patients whose aneurysms were treated by intracranial operations. Such a compilation is of little value, for no comparisons are possible. Some authors, for example, have reported only operative deaths, whereas others have reported overall mortality—operative and for varying postoperative periods. Some reports have included deaths from aneurysms at all sites, whereas others have been specific as to site, method of management and so forth. McKissock et al.[2] reported an experience involving 599 patients, of whom 151 had had definitive craniotomy. They reported an overall mortality of 38 per cent, but that mortality was based on cases followed from half a year to 10 years, and no operative mortality was given. The authors indicated a mortality of 89 per cent for patients treated conservatively, and a mortality of 49 per cent for patients who had had either an intracranial operation or a carotid ligation during the first three days after subarachnoid hemorrhage. After the third day, conservative treatment was associated with a mortality of 30 per cent, whereas with surgical treatment the mortality was 26 per cent. After that length of time, neither treatment could be considered superior to the other.

They pointed out that early operations were more readily performed upon poor-condition patients than upon those in good condition. In order to eliminate this bias, they excluded the poor-condition patients from their statistics. Among the remaining patients, the mortality in the conservatively-treated group was 27.8 per cent, and in the surgically-treated group it was 28.4 per cent. The removal of an intracranial hematoma, usually intracerebral, was the one significant factor in lowering the early mortality. However as with hypertensive hemorrhage, it was noted that the high mortality within the first 72 hours from the time of subarachnoid hemorrhage was due to intracranial hematoma, the highest incidence being in cases of middle-cerebral and distal anterior-cerebral artery aneurysms. That was because the rupture of these aneurysms is frequently associated with a hematoma in the sylvian and interhemispheric fissures. In the 90 per cent of

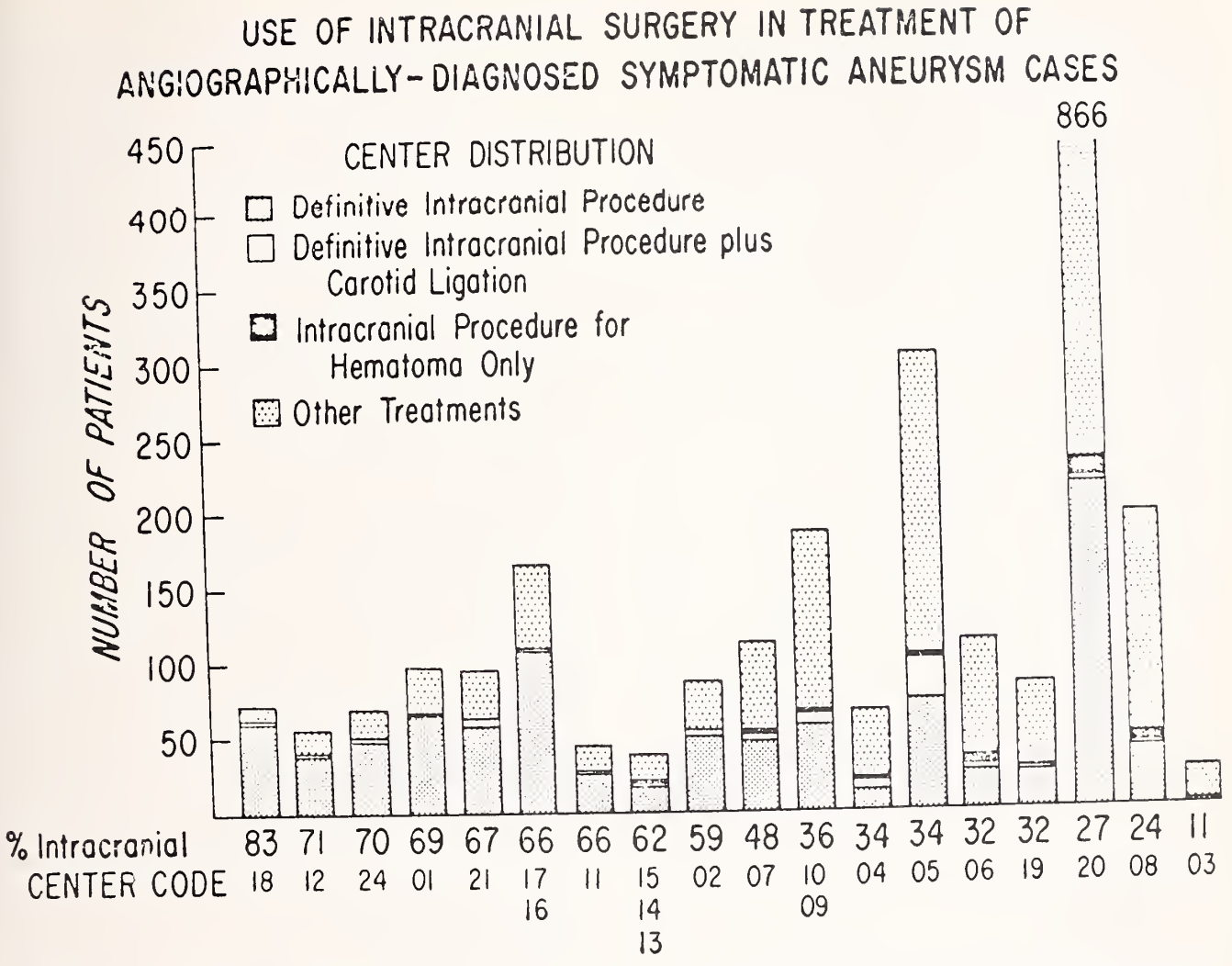


Figure 3. Results of intracranial surgery in the treatment of aneurysms. (F. Miles Skultety, M.D., and Hiro Nishioka, M.D.[1])

patients who died within the first 72 hours, 80 per cent of the hematomas were intracerebral and 9 per cent were intracerebellar.

The most analytical statistics on intracranial-aneurysm treatment come from the Cooperative Study.[1] However even that study of some 1,100 patients leaves many unanswered questions because the mass of material was accumulated from 24 centers where philosophies about and experience with surgical treatment differed.

In Figure 3 the general types of operation undertaken for aneurysm at the various centers are indicated. Thirty per cent of these patients had intracranial operations only. It is noted, however, that the percentages of patients treated in this way at those centers varied from 11 to 83. Many factors influenced neurologic and neurosurgical thinking as to how the lesion could best be managed. The overall mortality averaged 31 per cent and ranged from 24 to 60 per cent at the various centers. The most important reason for the wide range was that the center with the highest mortality operated upon a greater number of the more seriously ill patients, and more frequently undertook the surgery within the first three days following subarachnoid hemorrhage than did the centers where the mortality was lower.

Table 5 summarizes the gross mortality rate for intracranial operations on single aneurysms at the three major sites at the centers covered by the Cooperative Study.[1] These figures include deaths that occurred in the follow-up period after discharge from the hospital, and their inclusion probably accounts for the low figure for the 1961-1964 group. There are distinct but inconstant differences in mortality from lesions at the various sites, a phenomenon for which there is no ready explanation. Table 6 shows that of 979 patients treated by intra-

TABLE 5

MORTALITY RATES FOR INTRACRANIAL SURGERY BY YEAR OF ADMISSION TO STUDY[1]

Single Aneurysm Cases Only

Year of Admission	Aneurysm Site	Total Cases	Mortality Number	Mortality Per Cent
1956-57	Internal Carotid	70	26	37
	Middle Cerebral	44	9	20
	Anterior Communicating	66	24	36
	Total	180	59	33
1958	Internal Carotid	37		19
	Middle Cerebral	45	3	33
	Anterior Communicating	46	16	35
	Total	128	38	30
1959	Internal Carotid	40	14	35
	Middle Cerebral	53	17	32
	Anterior Communicating	39	17	44
	Total	132	48	36
1960	Internal Carotid	44	13	30
	Middle Cerebral	40	13	33
	Anterior Communicating	44	18	41
	Total	128	44	34
1961-64	Internal Carotid	42	15	36
	Middle Cerebral	38	6	16
	Anterior Communicating	49	12	25
	Total	129	33	26

Cases admitted to the Study in 1955 and 1965 are not distinguishable by computer analysis, and are therefore not included in this tabulation.

cranial operation, 79 underwent combined intracranial surgery and cervical carotid ligation, and 55 had evacuation of a hematoma only. Proportionately far fewer aneurysms of the internal carotid artery (23.5 per cent) were treated by intracranial operation than were aneurysms at the other major sites. This reflects the relatively greater number of extracranial carotid ligations made for pure carotid aneurysms. A considerably greater share (45 per cent) of aneurysms on the middle cerebral artery were managed by intracranial operation. This probably reflects the fact that a greater number of patients with mid-cerebral artery aneurysms had hematomas that the surgeon considered life-threatening. Moreover, there is a high incidence of hematomas with mid-cerebral artery aneurysm, and intracranial operations are performed to evacuate them, since the mortality with hematoma is so high. The mortality for the combined operation was considerably lower. The operative mortality for the intracranial operation has ranged from less than 10 to more than 50 per cent in various reports in the literature. Again no conclusions can be drawn, from those reports alone, about the reason for the wide variation or about the factor or factors influencing the various mortality rates. Among these we must include variations in skill and experience from surgeon to surgeon.

Cases in the Cooperative Study[1] have been pooled from 24 centers, and thus it is difficult to compare individual surgeons' skills in treating aneurysms. By that means the abilities of

TABLE 6

DISTRIBUTION OF INTRACRANIAL SURGICAL TREATMENT BY ANEURYSM SITE[1]

Aneurysm Site	No. of Cases of Aneurysms Diagnosed by Angiography	Cases Treated by Intracranial Operation Only		Cases Treated by Intracranial Procedure + Ligation of Cervical Carotid	
		Number	Per Cent	Number	Per Cent
Internal carotid	1058	249	24	38	3.6
Middle cerebral	504	228	45	8	1.6
Anterior communicating	669	252	38	13	1.9
Proximal anterior cerebral	72	29	40	—	—
Distal anterior cerebral	65	39	60	—	—
Posterior circle	134	33	24	—	—
Multiple aneurysms	642	149	23	20	3.1
Total	3144	979		79	

the more skilled surgeons have been minimized.

It may be asked: "Are there particular reasons for which a surgeon might select carotid ligation or the intracranial operation?" These are the disadvantages of carotid ligation: (1) A major source of blood supply to the brain is disturbed. (2) There is no absolute assurance that the patient is protected against another hemorrhage from the same aneurysm. (3) There may be delayed effects on the remaining carotid, and possible ischemic changes resulting from arteriosclerotic occlusion or narrowing. (4) The procedure itself is not without risk.

On the positive side for carotid ligation are the following points. (1) The procedure is technically simple. (2) There seems to be some evidence of its effectiveness in controlling a bleeding aneurysm—specifically one on the internal carotid artery, where on a statistical basis it probably is the better surgical treatment.

The disadvantages of an intracranial operation are these. (1) It is more formidable as a result of the circumstances under which it must be performed. (2) It requires greater technical skill from the neurosurgeon. (3) Its performance does not guarantee the elimination of the aneurysm from the circulation. Following are the points in favor of the intracranial operation. (1) It is more precise. (2) If the aneurysm is excluded from the circulation, maximum assurance can be given to the patient that there will be no recurrent bleeding.

From the Cooperative Study,[1] it would appear that when one considers *all* aneurysm sites and *all* conditions, especially the seriousness of the patient's illness, his age and the interval between the subarachnoid hemorrhage and the time of treatment, no single type of treatment—bedrest, carotid ligation or intracranial surgery—has proved superior to the others. Under such circumstances the simplest treatment can reasonably be selected as the best one, but when short-term (six-month) survival risks are about equal, then successful intracranial surgery must be considered best, for it does most to remove the risk of rebleeding. Some neurosurgeons skilled in the intracranial operation for aneurysms have already obtained a mortality of 10 per cent or less in carefully selected good-risk patients.

I believe that there will always be an *overall* mortality of perhaps 10 per cent for patients with bleeding aneurysms, and that such deaths will occur within 24 hours of the hemorrhage. A less complicated method than our present ones may someday be developed for diagnosing an intracranial aneurysm before it bleeds. But even with that information, there probably will be no way of knowing whether or when such an aneurysm may bleed. From the best information obtained or available from autopsy material, the incidence of intracranial aneurysm appears to be about 7 per cent. With such information and with safer and more sophisticated methods of attack, it is possible that aneurysms may someday be treated prophylactically. At present, however, we must deal with the immediate problems of subarachnoid hemorrhage, intercerebral hematoma implying a destructive lesion of the brain, the poorly-understood process of vasospasm associated with thrombosis and infarction, and cerebral swelling. These are only a few of the complications. If we can control these factors and their effects upon the brain, I believe that the immediate mortality and morbidity can be decreased. Certainly, however, this cannot be accomplished by leaving the patient alone. An active attack on the lesion is necessary.

The answer, in my opinion, is in great part a technical one. It may be a direct attack upon the aneurysm, with minimal disturbance to the brain and the circulation. For example, one might use a stereotaxic means of intra-aneurysmal clotting, or somehow induce aneurysmal thrombosis from outside the intracranial cavity. On the other hand, perhaps, the neurosurgeon's role may be restricted in the near future to the removal of an intracerebral hematoma, if for example a drug similar to epsilon-amino-caproic acid can be developed which will safely prevent clot lysis, and allow spontaneous thrombosis at the site of rupture or of the aneurysm itself.

The problem remains a difficult one. The best treatment for *all* aneurysms under *all* conditions has not yet been defined. From a comparison of the various treatments made by Locksley[6] in the Cooperative Study, it would appear that for patients in good condition who have aneurysms at any of the three major sites, carotid ligation offers a 90 per cent six-month

survival rate. The prognosis for intracranial surgery patients is 5 or 10 per cent less favorable. Bedrest was never found to be better than surgery. However when one considers the numerous variables, including the patient's condition, his age and the elapsed time between hemorrhage and treatment, as well as the aneurysm site, statistics become less significant. They certainly have little importance as one decides what to do for a particular patient. The neurosurgeon must choose after considering the factors present in each individual case, but he probably will lean toward the treatment that he has come to think is best—the one dictated by his own experience as well as by that of others.

ARTERIOVENOUS MALFORMATION

As I have already said, 6 per cent of all spontaneous subarachnoid hemorrhages are due to ruptures of arteriovenous malformations. It is believed that such malformations are the result of an embryonic fault where a localized, primitive arteriovenous shunt would normally have been replaced by a capillary bed. The malformation consists of a complex, inextricable tangle of blood vessels of various sizes by which arterial blood is shunted at many points into veins. In the Cooperative Study,[1] Perret and Nishioka made an analysis of 453 cases of arteriovenous malformation, and found that 307 (68 per cent) had bled. Other manifestations of these lesions were convulsive activity, mental retardation, a progressive neurologic defect, headache and dizziness. In 44 per cent of the 307 patients, hemorrhage had occurred between the ages of 20 and 40 years—a range considerably younger than that for hemorrhage resulting from intracranial aneurysm. Recurrent, non-fatal hemorrhage is frequent, and such a hemorrhage often occurs many years after the initial one. In many patients there were previous histories of subarachnoid hemorrhage—i.e., it had occurred prior to the bleeding that qualified them for the Cooperative Study. The lethal potential of the bleeds from this lesion was indicated by the fact that of 281 patients with bleeding supratentorial arteriovenous malformations, 27 died —a mortality of about 10 per cent. Twenty-three per cent of the patients with bleeding arteriovenous malformations had recurrent hemorrhage that produced an additional mortality of 12 per cent. More impressive, however, is the fact that 25, or all but two of them, were moribund upon admission to the hospital, and all were dead within four days following the initial bleed. The remaining two patients in that series died of recurrent hemorrhage.

Intracerebral hematoma is frequently associated with subarachnoid hemorrhage from an arteriovenous malformation, and produces profound neurologic defects, especially hemiparesis or hemiplegia. This occurred in 47 per cent of 247 patients, and another 8 per cent of them had at least a hemianopsia which may or may not have been associated with another neurologic defect. In this regard, deep-seated parenchymal or ganglionic hemorrhage, which is usually thought to be related to hypertension and to rupture of the perforating (lenticulostriate) branches of the middle cerebral artery, are found to be more frequently due to rupture of small (1 to 5 mm.) vascular malformations which McCormick and Nofzinger[8] have called "cryptic angiomas." These lesions frequently are destroyed by the hemorrhage, and only meticulous examination of the hematoma reveals the true nature of the bleed.

In the Cooperative Study[1] 103 patients with bleeding arteriovenous malformations were treated conservatively. Five per cent of them died as the result of further bleeding. Surgical treatment was undertaken in 148 patients. It consisted of carotid ligation in seven, with one death; ligation of vessels immediately supplying the malformation in 10 patients, with one death; evacuation of the hematoma only in 12, with three deaths; and excision of the malformation in 119 patients, with 13 deaths incident to the operation. The overall operative mortality was 15 per cent, and for excision alone it was 11 per cent.

It is generally agreed that carotid ligation has no value in the treatment of these lesions. X-ray therapy, a form of conservative treatment, is considered similarly ineffective. The evacuation of a hematoma is mandatory as a life-saving measure. Only eradication of the lesion removes the threat of recurrent hemorrhage and its attendant complications. Excision should be reserved for arteriovenous malformations that are in locations where removal does not entail a high risk of producing a serious neurologic defect, and in patients whose

lesions are clearly the cause of increasing neurologic disability.

"PRIMARY" CEREBRAL HEMORRHAGE

From the surgical standpoint, patients with intracerebral hemorrhage—frequently called "hypertensive"—can be offered little. These hemorrhages usually are massive and destructive, and involve the deep ganglionic masses, thus precluding a successful outcome even following evacuation of the clot. Occasionally one may find a patient with a "stroke" due to an intracerebral hemorrhage who improves from a hemiplegia or a speech disturbance. After some time—usually two or more weeks—he may develop the symptoms and signs of a space-taking mass, with increased intracranial pressure and a progressing neurologic deficit due to enlargement of the hematoma by the osmotic forces incident to its breakdown. Removal of the mass can be helpful in such a situation, especially if the hematoma is in the non-dominant hemisphere or if it involves the frontal or occipital lobes.

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COMING MEETINGS

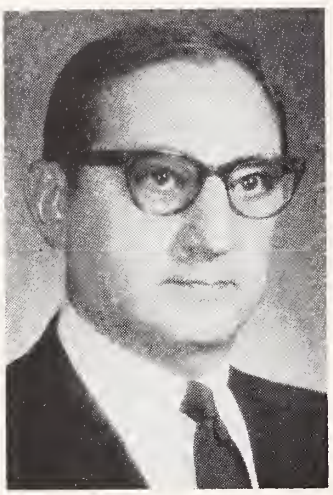
CONTINENTAL U. S.

July 2-7	**Annual Midsummer Meeting of International College of Surgeons, United States Section,** Whiteface Inn, Lake Placid, New York.
July 11-17	**Woman's Auxiliary to American Medical Association,** Waldorf-Astoria, New York.
July 13	**Annual Meeting of American College of Legal Medicine,** Warwick Hotel, New York.
July 13-17	**AMA Annual Meeting,** New York City.
July 18-19	**23rd Annual Rocky Mountain Cancer Conference,** Brown Palace Hotel, Denver.
July 21-24	**New Mexico Chapter of American Academy of General Practice, 12th Annual Ruidoso Summer Clinic,** Chaparral Motel, Ruidoso, New Mexico.
July 21-25	**Postgraduate Course in Internal Medicine sponsored by University of Colorado School of Medicine,** Estes Park, Colorado.
July 23-25	**Montana Radiological Society Symposium,** Glacier National Park, Montana.
July 28-Aug. 8	**Clinical Management and Control of Tuberculosis,** National Jewish Hospital, Denver.
July 29-Aug. 1	**Developmental Pediatrics (American Academy of Pediatrics).** University of Texas Medical Branch, Galveston.
July 31-Aug. 2	**Postgraduate Course in Dermatology sponsored by University of Colorado School of Medicine,** Aspen, Colorado.
Aug. 3-6	**Twelfth Annual Postgraduate Course in Pediatrics sponsored by University of Colorado School of Medicine,** Aspen High School, Aspen, Colorado.
Aug. 6-8	**Seminar on Neurology and Neurosurgery,** Veterans Hospital, Fort Snelling, Minneapolis.
Aug. 10-15	**American Congress of Rehabilitation Medicine,** Palmer House, Chicago.
Aug. 11-16	**Postgraduate Course in General Practice Review sponsored by University of Colorado School of Medicine,** Denver.
Aug. 14-16	**Postgraduate Course on Peptic Ulcer sponsored by American Gastroenterological Association,** Aspen, Colorado.
Aug. 21-23	**West Virginia State Medical Association,** Greenbrier, White Sulpher Springs.
Aug. 21-23	**Postgraduate Course on Clinical Gerontology sponsored by University of California, Los Angeles, and American College of Physicians,** Shoreham Hotel, Washington, D. C.
Aug. 24-29	**American Geriatrics Society,** Sheraton-Park, Washington, D. C.
Aug. 26-29	**Wyoming State Medical Society,** Jackson Lake Lodge, Moran, Wyoming.
Aug. 26-Sept. 1	**Pacific Dermatologic Association,** Princess Kaiulana Hotel, Honolulu.

ABROAD

July 7-11	**Annual Scientific Meeting, British Medical Association,** Aberdeen, Scotland.
Aug. 10-14	**9th International World Congress of Otorhinolaryngology,** Mexico City, Mexico.
Aug. 10-15	**6th International Congress of Chemotherapy,** Tokyo.
Sept. 1-5	**International College of Surgeons, United States Section, 34th Annual Meeting,** Montreal.
Sept. 14-17	**European Association for Study of Diabetes, 5th Annual Meeting,** Montpellier, France.
Sept. 22-27	**International Congress on Rural Health,** Usuada, Japan.
Sept. 25-27	**French Congress of Medicine (37th),** Paris.

President's Page



"Please be assured that Iowa physicians are vitally interested, as are most Americans, in the prudent use of tax dollars and in efficiency and economy in government-paid health services, and in all health services for that matter. Combined, too, with this priority interest in fiscal soundness is the unwavering dedication of Iowa's doctors to the high ethical values on which the profession is built, to the elements of integrity and principle."

The above is an excerpt from a letter that the Iowa Medical Society sent, on June 10, to HEW Secretary Robert Finch, in which grave concern was expressed regarding federal proposals to place further limits upon Medicaid payments to physicians. You will find the entire letter in the "In the Public Interest" section ("green sheet") of this magazine.

Few would differ with the statements I have quoted. They reflect the philosophy to which physicians subscribe. But can we transform those words into actions? Therein lies the challenge. The task will require wisdom, willingness and energy output, in full measure.

"Peer review" constitutes the key. In the coming months peer review will enable the medical profession to live up to its ideals, or the medical profession will be swallowed by the federal bureaucracy.

The need is that immediate, and the stakes are that high!

Wm M. Kingsley MD

President



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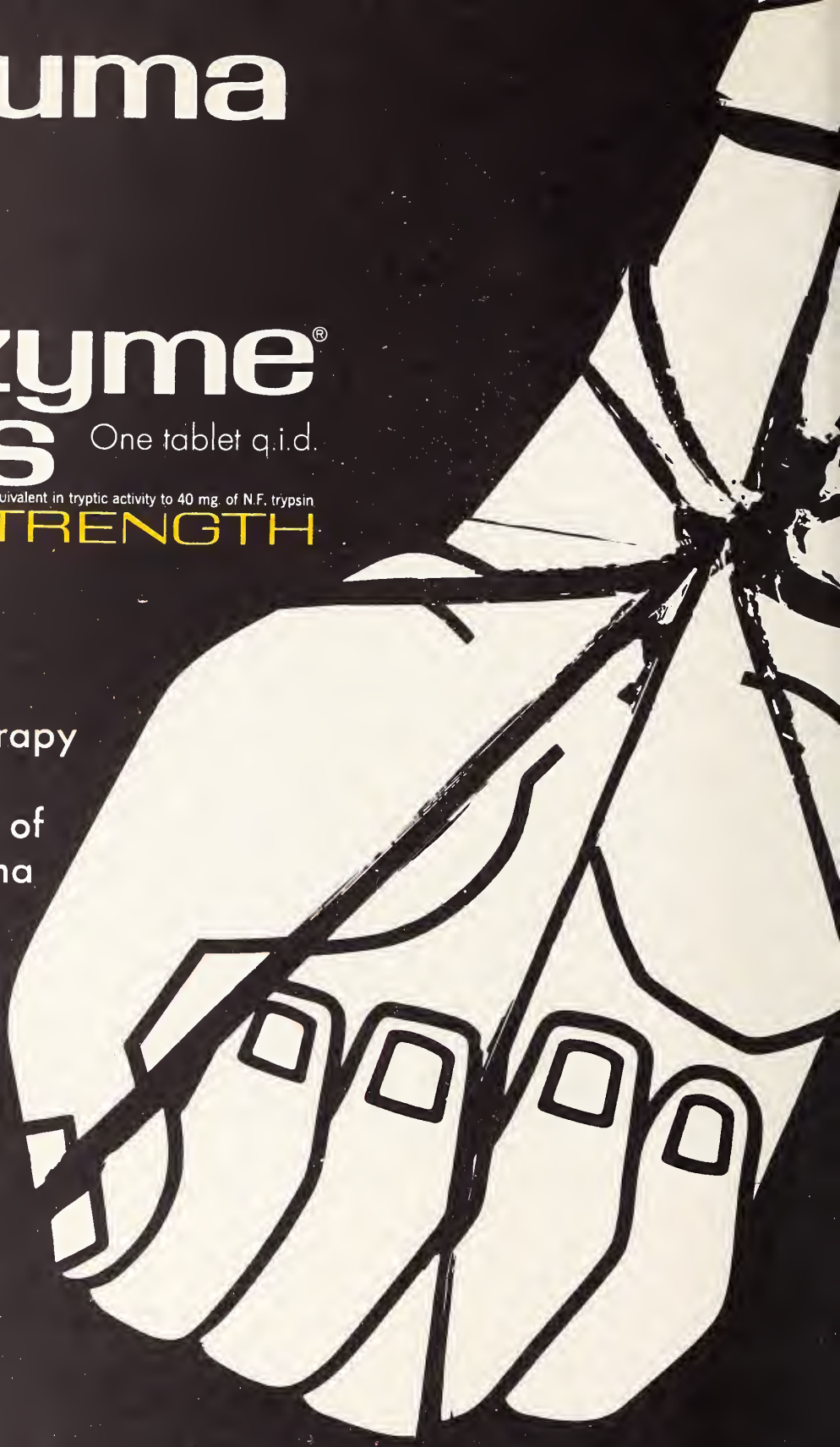
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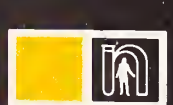
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Editorials

DRIVING A CAR IS SERIOUS BUSINESS

Although it may seem to be an old story, and perhaps one not worth repeating, the frequency and seriousness of highway accidents in this country cannot be overemphasized. It has become a major medical problem deserving the attention of every physician in the land, regardless of his special field of endeavor or of interest. The life he saves may be his own, or one equally dear to him. It was not long ago that an Iowa physician and his entire family were wiped out in a collision at a highway intersection. A colleague and friend recently lost his wife in a completely inexcusable collision on a city street.

In a recent article, Mr. Ken W. Purdy, a highly regarded writer in the automobile industry, stated the problem dramatically: "Some 10,000 Americans will be hurt in automobile accidents today, and 1,000 will be killed this week. The total cost of automobile accidents this month will be one billion dollars, divided many ways: property loss, time loss, partial payment for this year's eight million bed-days in hospital for survivors. . . . When G.I.'s step ashore in Vietnam, their faces plainly tell that they're thinking very seriously about the next few months. But they're safer in Vietnam than they are rolling along in the family hard-top back home."* Statistics tell but one part of the sad story; the pain, suffering and deprivation defy measurement.

Mr. Purdy emphasizes that driving a car is serious business. In fact, he says, "For much of the time, driving a car is more dangerous than flying an airplane. The pilot will not, in an hour, pass 250 other planes, three feet apart, going in the opposite direction, a certain fixed percentage driven by drunks, narcotic addicts, psychopaths and plain incompetents."

Although it is perhaps a worn-out cliché, "Drive as if the other fellow were a moron intent on killing you," still contains some merit. According to Mr. Purdy, if you count any 50 successive cars that you meet on a highway after dark, you can be reasonably sure that the driver of at least one of them was too drunk to walk a straight line. It is estimated that drunks cause 25,000 road deaths a year and about 800,000 accidents. Police also are finding more and more evidence of drug-taking in drivers who have been involved in accidents on the streets and highways.

Despite the fact that many people are careless about fastening their seat belts, Mr. Purdy says, "One thing is beyond dispute: The seat belt (lap and shoulder combined) is a major life-saver, particularly in 'short-haul' 25-40 m.p.h. situations."

The driver must keep in mind that the automobile is a man-made device, and therefore fallible. The choice of car requires intelligent study of consumer-interest publications. The author supports the idea that in case of an accident, a heavy car is safer than a light one. He also says, "The decline of craftsman-pride and service ideals has brought automobile maintenance and repair to an all-time low." He wants his readers to solve that problem by patronizing mechanics who are long-time friends of theirs, and can be expected to have a real interest in his continued safety.

Summer is here, and traffic on our streets and highways is about to reach an all-time high. Please, doctor, see that your car is in safe working order, wear your seat belt regularly, and practice, teach, exhort and implore your patients and other friends to drive safely.

Driving is serious business!

* Purdy, K. W.: Drive a lifetime. MARATHON WORLD, 6:1 (Winter) 1969.

ACHIEVEMENT IN SCHOOL

It is estimated that between 30 and 50 per cent of school children perform at levels far below their potentials, as judged by psychological testing. These are children who are not lacking in talent, but possess it, fail to use it and are classified as "underachievers." It is recognized that there are many causes for underachievement, including problems of the child, of the home and of the school.

The "underachiever" is a serious concern to his parents, and the family physician or the pediatrician is frequently consulted about the cause and the possible remedy for his performance. An article by Illingsworth, a British pediatrician, entitled "How to Help a Child Achieve His Best" deserves serious attention from parents and everyone else who is concerned in the rearing of their children.* Dr. Illingsworth emphasizes factors in the management of the child at home which may help him achieve his maximum potential and use to the full the talents which he possesses.

The author points out that emotional, physical and intellectual development are interrelated. Many children are prevented from doing their best because of emotional factors, personality problems, and their attitudes and behavior toward others. Though personality is in part inherited, it is largely determined by environment. Thus the factors which affect a child's emotional development and which leads to desirable personality characteristics deserve special emphasis.

Illingsworth then discusses what he regards as the most important factors in a child's emotional and intellectual development. His basic needs are love and security; firm, loving discipline; acceptance at all times, despite misbehavior or failure to live up to parental expectations; instillation of good moral values; a wholesome attitude toward sex; a gradual acquisition of independence; and encouragement rather than discouragement—praise for achievements, however meager they may be.

Dr. Illingsworth stresses the concept that the pattern of learning is established long before a child starts school, and it is the responsibility of parents to establish a good and rewarding pattern during the first five years. He points out that learning to learn does not mean beginning to read or to solve arithmetic problems at the earliest possible time. "It is far more basic and subtle, and includes motivating the child to find pleasure in learning to develop his ability to pay attention to others, to engage in purposeful activity, to delay gratification of his wishes, and to work for more distant, rather than immediate rewards and goals." It is in these early years that the child's view of adults as sources of information and ideas, as well as of approval and rewards, is created. It is through this type of learning that the child develops his self-image, the standards he sets for himself, and his attitudes toward others. The child must find out that learning is pleasant.

Many parents are fearful of pushing or overstraining the child. Dr. Illingsworth insists that this will not occur if learning is a pleasant process and if it is done without coercion. He feels that if the three- or four-year-old shows himself ready to learn to read, it is unwise to deny him, and he should be encouraged and provided with suitable books.

An important element in motivating the child to give his best is a proper parental attitude towards education. He must be guided into a proper pattern of homework and made to understand that play, television watching, or the pursuit of a hobby are to be enjoyed only after work is done. There is no need for unpleasantness or conflict about it; it is a fact of life. Parents who have their children's welfare at heart usually maintain close contact with the school and their child's teacher. The conscientious parent is interested in the child's successes, and is concerned over his failures and seeks advice about how best to help him.

The author admonishes parents against pushing a child beyond the limits of his capabilities, and acknowledges that it is difficult to strike a balance between underexpectation and over-

* Illingsworth, R. S.: How to help child achieve his best. JOURN. PED., 73:61-68, (July) 1968.

expectation. If too little is expected of him, the child is likely to respond by underachieving. If too much is expected of him, the results are insecurity, anxiety and underachievement.

The importance of a good relationship with others, on the parents' part, is important in helping the child achieve his best in vital areas of behavior. Parental example and an atmosphere of kindness, love, unselfishness, honesty, tolerance and consideration of the feelings of others—all of these help to mold the child's personality in a form that is pleasing to others. Fortunate is the child who grows up with a tolerance of human frailty and who learns to accept others as they are, recognizing the good and overlooking the undesirable characteristics in others.

The example of parents' absorbing interests —their choice of reading material and of television programs, their conversation and the nature of the subjects discussed, and even their language—have roles in shaping the child.

Parents are urged to encourage persistence, accuracy and thoroughness, and though these qualities may in part be inherited, they are largely implanted by environment. Children need to be shown how to do things properly, well and thoroughly, and to be dissatisfied with slipshod thinking or doing. The qualities of curiosity, of originality and of creativity should also be encouraged and stimulated.

It is through pride of achievement and the self-confidence gained by achievements and the ensuing rewards that interest in learning and ambition to achieve new goals are stimulated. These are the necessary steps in the pathway to success, and they have their beginnings in early childhood. This is the process by which a child finds that learning is pleasant and that learning brings its rewards. He must be encouraged to do his best, whatever the task, and he must be helped to attain his goal.

Dr. Illingsworth emphasizes that parents must never lose sight of the fact that the clever child may achieve far less than the much less talented youngster with a pleasanter personality (largely the product of his home environment), or the youngster who has more persistence, creativity, ambition and power of leadership.

Blessed is the child who learns that hard work can be satisfying, whether it is physical or mental activity. He must learn that success in any given field does not just happen, but comes about after the expenditure of effort, though admittedly there are other contributing factors that make success easier for some than for others. Parents must avoid choosing a vocation for their child; rather, they should assist him in finding a suitable field of endeavor—one in keeping with his talents, his personality and his interests.

Happily Dr. Illingsworth acknowledges that no parents are perfect—that adults, like children, may succeed in one field and fail in another. Never to be forgotten is the maxim that every child has his limitations. "The essential thing to be kept in mind is that having given the child all the help one can, he is accepted for what he is, with his limitations and assets; that he should be helped to the extent of his ability to face his limitations and develop his assets to the fullest; and that at all times, in success or failure, he is loved and wanted."

DEPRESSED FRACTURE OF THE SKULL

A report by Miller and Jennett,* of the Division of Neurosurgery at the Institute of Neurological Sciences, Glasgow, on a consecutive series of 400 patients with depressed fracture of the skull teaches some valuable lessons and confirms a principle which Harvey Cushing expressed as follows in 1918: "Though many scalp wounds which appear serious prove to be trifling, more which appear trifling prove to be serious."

The authors point out that most patients with depressed skull fractures that have been properly treated recover promptly and completely. In the majority of cases the brain damage is restricted to the immediate vicinity of the fracture, and as a consequence there is no prolonged period of unconsciousness, unless in addition to the localized head injury there

* Miller, J. D., and Jennett, W. B.: Complications of depressed skull fracture. LANCET, 2:991-995, (Nov. 9) 1968.

was an acceleration component in the traumatic incident and consequently more diffuse brain damage. Yet even in patients in whom the initial injuries appear relatively minor, any of several serious complications may be life-threatening. In compound fractures there always is the hazard of intracranial infection. Intracranial hematomas may occur from damage to brain or dura. Serious hemorrhage may occur from a dural venous sinus, either during the traumatic incident or when an attempt is made to elevate the depressed fragment. Jacksonian epilepsy is not an uncommon sequel, and it may occur soon after the injury or after an interval of months or years. An awareness of these possibilities and a knowledge that they may result from what appears to be a relatively insignificant injury will prompt judicious and skillful management of such patients. Although this is a study from a Scottish medical center, the increasing traffic-accident rate in this country, and the accidents that occur in our industrial plants and on our farms and at our homes make it a valuable contribution to a better understanding of an all too common problem here, as well as in Europe.

The report is based upon 400 depressed skull fracture patients treated at the Glasgow institute between 1956 and 1967. Most of the patients had been referred from other hospitals in Glasgow and elsewhere in western Scotland where it is the policy to refer all patients with such injuries to the neurosurgical unit. This suggests that these, for the most part, were the most severely injured and complicated cases, but a comparison with a group of 152 depressed skull fracture cases admitted directly to Radcliffe Infirmary, Oxford, between 1948 and 1956 showed a remarkable similarity. Thus it is thought that observations on the Glasgow series thus are valid for most depressed fractures in civilians.

In the 400 patients, there were 335 males and 65 females, and even in those under five years of age there were more than twice as many boys as there were girls. The belief that youths are more suspectible than adults to serious injury is supported by the fact that 51 per cent of the group were under 16 years of age. Actually, two-thirds of the female patients with depressed fractures were under 10 years of age, compared with one-third of the boys.

Thirty-seven per cent of the depressed fractures had resulted from road-traffic accidents; industrial accidents had caused 15 per cent; assaults with various objects had produced 14 per cent; and sports accidents had accounted for 9 per cent (most of them on the golf course!). Ninety-four patients had been injured in domestic accidents.

Surprisingly, a little over half of the patients had periods of post-traumatic amnesia lasting less than one hour, and half of these were never unconscious. It was found that amnesia with a duration of more than 24 hours was twice as frequent in patients who had penetration of the dura. No correlation was demonstrated between the duration of post-traumatic amnesia and size of the fracture.

In the group of 400 patients, compound depressed fractures were present in 359 (90 per cent). In those patients in whom the condition of the dura could be assessed, it was found to be torn in 188 cases, and judged to be intact in 120. Among the 41 patients with closed depressed fractures, elevation of the depressed fragment was carried out in 22, and in nine of them a tear of the dura was found.

In 38 of the 400, the depressed fracture was complicated by infection, and in 24 the infection was present upon the patient's admission to the neurologic unit. Regarding those 24 patients, the authors stated that the fractures had been neglected to some extent, either by the patient or by the physician. All of the fractures were compound, with the exception of one that communicated with the frontal sinus. Most of the patients had a penetration of the dura; loss of consciousness had occurred in less than one-third of them; seven had had no x-ray of the skull. Four of the group died; five had prolonged neurologic deficits; and three developed post-traumatic epilepsy.

Twenty-eight patients had substantial intracranial hemorrhages, and the hemorrhage was more often intracerebral than subdural. All of the fractures but one were compound, and in 23 the dura was torn. The authors pointed out that as in the infected cases, the extent and the seriousness of the injury was often underestimated when first seen. Nineteen of this group of patients had signs of increased intracranial pressure; three patients died; and seven patients had prolonged neurologic deficits.

In 46 patients the dural venous sinuses were involved by the depressed fracture; in 22 cases the dural sinus was actually torn; and in three of them the sinus was completely transected. There were two deaths in this group; nine had neurologic deficits; and 12 had either early or late post-traumatic epilepsy.

Although the 104 complicated cases constituted only one-fourth of the entire series, they accounted for two thirds of the deaths, almost half of the prolonged neurologic dysfunctions, and over one-third of the cases of early or late epilepsy.

The authors emphasize that civilian depressed fractures carry an appreciable risk of serious complication and that it is the most trivially injured who are most at risk. Because there is no loss of consciousness and there are no focal neurologic signs, the physician may be deceived into thinking that the injury is merely superficial. Proper management depends upon an early diagnosis of depressed skull fracture, and this in turn depends initially upon suspicion of such a possibility in any scalp wound, no matter how trivial, or a history of injury with any fine, sharp instrument.

In their concluding discussion of the series, the authors assert that many of the complications that occurred could have been prevented by better management. It is hoped that better organized services in hospitals will help to reduce the mortality and morbidity from depressed skull fractures. Improved management of such cases can be achieved through an awareness of possible complications, maintenance of 24-hour x-ray facilities for accurate diagnosis, a high standard of "minor surgery" and a close working relationship between the initial attending physician and a neurosurgical unit. They conclude with the statement: "With antibiotic prophylaxis, the small delay involved in transferring patients demonstrated as having a definitely depressed fracture of the skull to a neurologic unit for definitive surgical treatment involves less risk than inadequate debridement carried out sooner."

Letter to the Editor

Editor and Physicians of Iowa:

Having had an opportunity to read about a Muscatine community health effort heavily involving Iowa medical students, in the article by Kling and Long in the May, 1969, JOURNAL OF THE IOWA MEDICAL SOCIETY, perhaps you would be interested in learning of other such endeavors.

David Sparkes, a junior medical student, has spent long hours working on the national Student American Medical Association's *ad hoc* Committee on Community Health. Besides helping with the Muscatine project, he has initiated and coordinated student participation in well-baby clinics held by general practitioners in Toddville, Central City and Mount Vernon. Similar possibilities have been and are being discussed with the appropriate medical societies and social agencies elsewhere.

This summer three Iowa medical students, including Mr. Sparkes, will be among 50 students working with health professionals in an Appalachian-region SAMA program. In addition, two students will be working full time with the Muscatine Migrant Health Program, under the guidance of Dr. Ranald Olsen.

Health-professions students across the country, along with practicing professionals, are displaying an earnest and active concern over the public's insistence upon a redesigning of health-care delivery. Hopefully the students' concern and resulting activities will not meet an undue amount of skepticism from the practicing professionals. Solutions to the problems defined by the "public," if solutions are possible, do not yet exist.

Whatever the outcome of current efforts (and we hope there will be at least a few positive results), it is healthy for health-professions students—soon to be practicing professionals themselves—to confront community health problems.

GLEN PETERSON
President, Iowa SAMA, 1968-1969
TIM G. KLING
115 Templin Park
Iowa City, Iowa 52240
May 19, 1969

The Iowa Medical Society's "blanket" accident policy covers officers, committee members, delegates to annual or special conventions and employees, each in the maximum amount of $50,000 for death or injuries incurred while traveling on behalf of the Iowa Medical Society. The blanket policy excludes coverage for a physician or employee while acting as a pilot or crew member in a private aircraft.

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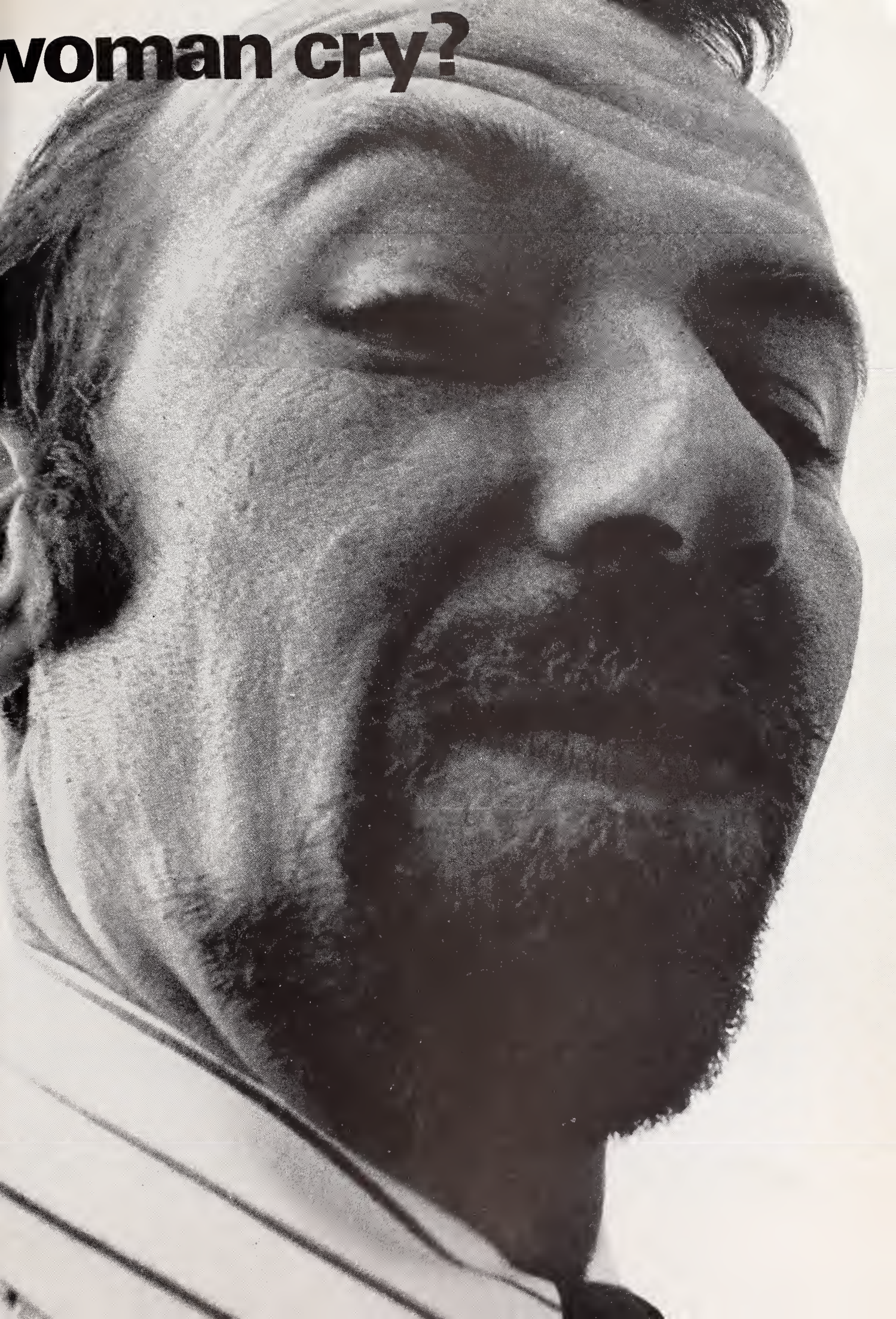
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University Hospitals DRUG LETTER

Treatment of Allergic Rhinitis

S. B. WHITEHEAD, M.D., and P. M. SEEBOHM, M.D.

Allergic rhinitis is a reaction of the nasal mucosa characterized by sneezing, non-purulent rhinorrhea and nasal occlusion. This syndrome may occur either in a seasonal (hay fever) or non-seasonal (perennial) pattern. It affects approximately 10 per cent of the population of the United States.[2] The onset occurs at any age but most commonly in the third decade, and it can affect all races, with the possible exception of the American Indian.[3] Suggestive symptoms are sneezing, nasal stuffiness, rhinorrhea, conjunctival injection and edema, excessive lacrimation and ocular pruritis. The nasal mucosa and conjunctiva act as the shock organs. The histologic picture consists of increased vascular dilation, edema of the nasal mucosa and proliferation of submucosal tissues with eosinophilic infiltration. Histamine is considered to be the mediator, and it is released from cells when the antigen (such as pollen) combines with reagin (skin-sensitizing antibody) on the cell membrane. Both skin-test reactions to pollen antigens and many effects of natural exposure to pollen antigens can be partially inhibited by antihistamine drugs. Pollens important in causing allergic rhinitis originate in plants that depend on wind for cross-pollenation, such as trees, grasses and certain weeds. Pollen size averages between 20 and 30 microns. The pollenating season for trees occurs in April, May and early June; for grasses in late May, June and July; and for weeds from mid-August to the first frost.[3] Complications of allergic rhinitis include (1) bronchial asthma, which develops in from 7 to 40 per cent of patients with allergic rhinitis;[1] (2) bacterial infection of the nose and paranasal sinuses; (3) nasal polyps, which, although rare complications, are more frequent in perennial than in seasonal allergic rhinitis; and (4) chronic serous otitis media (in children).

TREATMENT

I. *Avoidance of the offending allergen.* This form of therapy is often difficult. The degree of relief often depends on the extent of avoidance. During the pollen season, measures such as sleeping with the bedroom windows closed, driving with the car windows shut, air conditioning, and electrostatic filters often provide significant benefit. Most patients improve in an air-conditioned environment, but window units must not take in outside air because filters are inadequate to remove pollen. Electrostatic filters—devices that precipitate 99 per cent of suspended material of pollen size using an electrostatic charge—are useful only when it is possible to ventilate and cool the room. However, because of the cost and unpredictable results, the patient should try out such an instrument before purchasing it. During the height of the pollen season, vacationing in a location relatively or completely free of the offending allergen may result in marked improvement. Since this is often inconvenient as well as expensive, the physician should try to control his patient's symptoms in his own community.

II. *Drug therapy.* This form of therapy is most efficacious in patients with mild symptoms, or in patients with symptoms persisting in spite of hyposensitization therapy. Drugs have no effect on the degree of sensitivity of the patient, and are not satisfactory as the sole treatment of severe allergic rhinitis. At best they provide only rather temporary relief. The useful drugs are antihistamines, vasoconstrictors and adrenal corticosteroids.

A. *Antihistamines.* The antihistamine drugs compete with histamine for the receptor sites in smooth muscle and capillaries. They do not prevent histamine release, nor do they bind histamine.[4] The effect of any one antihistaminic drug may diminish with prolonged use. These drugs provide relief in 70 to 80 per cent of cases. The side effects are drowsiness, mental confusion, occasional premature ventricular contractions and—rarely—nausea, vomiting, confusion, leukopenia and agranulocytosis. Selection of the appropriate antihistamine is often difficult because of marked variations in individual responses to both the antihistaminic and the sedative properties. Often the most effective drug must be selected by trial. Most antihistamines prevent sneezing. The more potent ones prevent rhinorrhea. No antihistamine is very effective in preventing nasal occlusion.[4] The accompanying table summarizes information regarding the various antihistaminic preparations.

Because the symptoms of allergic rhinitis are usually worse in the morning, it is often desirable to use a prolonged-action antihistamine at bedtime. The use of the drug during the daytime can be avoided in this way, but if necessary a single dose of a short-acting preparation may suffice. Doubling the dose of any of the short-acting drugs at arising and at bedtime appears to be more effective than giving a single dose of the drug on

Dr. Whitehead was a fellow in allergy and applied clinical immunology when this paper was written, and Dr. Seebohm is a professor of internal medicine. This article appeared initially in the March, 1969, issue of DRUG LETTER, a monthly intramural publication of University Hospitals, Iowa City. It is reprinted here at the suggestion of the Clinical Pharmacology Committee at the University, and with the permission of the authors.

four occasions during the day.[4] Topical nasal and ocular antihistamines are usually inadequate.

B. *Corticosteroids.* These drugs are occasionally needed temporarily during the height of the pollen season when antihistamines have not produced relief. Usually, small doses of prednisone (15 to 20 mg. daily over a 7 to 14 day period) are effective. Injectable steroids such as methylprednisolone acetate (Depo-Medrol, Upjohn)or repository corticotropin injection (ACTH Gel; Acthar Gel, Armour) are effective in single doses. However the latter may cause water retention. Respihalers containing dexamethasone (Turbinaire Decadron, Merck, Sharp & Dohme) used as two sprays in each nostril three times daily, will often give significant relief, and the patient will absorb an equivalent of less than 8 mg. prednisone.

III. *Hyposensitization.* Hyposensitization may be defined as lowering the state of allergic reactivity by injecting progressively larger amounts of antigen which neutralize or eliminate the circulating antibody that is responsible for the allergic reaction. It is the most effective therapy for allergic rhinitis. Hyposensitization has been employed since 1911, but only during the last 20 years have double-blind controlled studies been performed to evaluate its effectiveness.[10]

Three main hyposensitization techniques have been used in recent years. The first—emulsion or repository therapy—consists of aqueous allergic extract emulsified in peanut oil or mineral oil and administered in one or two pre-seasonal injections. Its main advantages are the possibility of administering large amounts of allergen without causing constitutional allergic reactions, and the convenience of fewer injections. However this form of therapy often has resulted in persistent nodules or sterile abscesses at the site of injection. Mineral oil may cause plasma cell tumors in mice when injected intraperitoneally, and the United States Food and Drug Administration has not licensed the sale of mineral-oil emulsions for injection purposes. A second form of hyposensitization therapy utilizes alum-precipitated extracts. Pollen antigens extracted with pyridine and precipitated with alum are available as Allpyral (Dome Laboratories). Carefully controlled studies do not support its effectiveness, and patients develop little tolerance to the allergen.[7] The third and most popular technique employs multiple doses of aqueous extract. Extracts of specific allergens are prepared with buffered saline and are given subcutaneously at weekly to monthly intervals throughout the year. Aqueous hyposensitization may be administered

ANTIHISTAMINE PREPARATIONS

Preparation	Generic Name	Comment	Comparative Dosage
	Short-Acting		
Phenergan	Promethazine Hydrochloride (Wyeth)	High soporific effect	12.5 mg.
Benadryl	Diphenhydramine Hydrochloride (Parke-Davis)	High soporific effect	25 mg.
Pyribenzimine	Tripelennamine Hydrochloride (Ciba)	Lower soporific effect	25 mg.
Chlor-Trimeton	Chlorpheniramine Maleate (Schering)	Lower soporific effect	4 mg.
Forhistal	Dimethindene Maleate (Ciba)	Lower soporific effect	1 mg.
Dimetane	Brompheniramine Maleate (A. H. Robins)		4 mg.
	Sustained Action		Dosage Sizes Available
Chlor-Trimeton Repetabs	Chlorpheniramine Maleate (Schering)		8 mg.
Teldrin Spansule	Chlorpheniramine Maleate (Smith, Kline and French)		8 mg., 12 mg.
Forhistal	Dimethindene Maleate (Ciba)		2.5 mg.
Polaramine Repetabs	Dexchlorpheniramine Maleate (Schering)		4 mg., 6 mg.
Dimetane Exentabs	Brompheniramine Maleate (A. H. Robins)		8 mg., 12 mg.
	Combined Preparations		
Co Pyronil	Cyclopentamine Hydrochloride (Lilly)		12.5 mg. (vasoconstrictor)
	Methapyriline Hydrochloride		25 mg. (rapid-acting antihistamine)
	Pyrrobutamine Phosphate		15 mg. (sustained-action antihistamine)
Ornade	Phenylpropanolamine Hydrochloride (Smith, Kline and French)		50 mg. (decongestant)
	Chlorpheniramine Maleate		8 mg. (antihistamine)
	Isopropamide Iodide		2.5 mg. (drying agent)



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Precautions: Observe usual sulfonamide therapy precautions including maintenance of an adequate fluid intake. Use with caution in patients with histories of allergies and/or asthma. Patients with impaired renal function should be followed closely since renal impairment may cause excessive drug accumulation. Occasional failures may occur due to resistant microorganisms. Not effective in virus and rickettsial infections.

Adverse Reactions: Headache, nausea, vomiting, urticaria, diarrhea, hepatitis, pancreatitis, blood dyscrasias, neuropathy, drug fever, skin rash, Stevens-Johnson syndrome, injection of the conjunctiva and sclera, petechiae, purpura, hematuria or crystalluria may occur, in which case the dosage should be decreased or the drug withdrawn.

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for several months before the pollen season (pre-seasonal treatment), during the pollen season (co-seasonal treatment), or on a year-round basis (perennial treatment). Perennial therapy results in greater relief of symptoms and a higher degree of permanent desensitization than does pre-seasonal or co-seasonal therapy.

Hyposensitization therapy is indicated when the patient is sensitive to an inhalant allergen which cannot be avoided to a sufficient degree to prevent or control his symptoms. It is usually confined to pollen, dust and mold allergy. Bacterial vaccines have been employed where hypersensitivity to bacteria was considered the cause of the patient's symptoms, but controlled double-blind studies have not substantiated their efficacy.[9] The extracts in aqueous hyposensitization are prepared with buffered saline. These extracts are given in progressively larger doses at weekly intervals until maximum tolerance is reached. After that time the administration of this maintenance dose at three-week intervals will maintain protection. The schedule of doses must be individualized according to the patient's sensitivity. The best indications of sensitivity are the patient's reaction both to the intradermal skin tests and to the hyposensitization injections. Following an aqueous-extract injection, slight erythema and swelling at the site of injection are normal. A large local reaction consisting of swelling, erythema and pruritus lasting 24 to 48 hours usually indicates that the limit of tolerance is being approached. A constitutional reaction consisting of cough, nasal stuffiness, rhinorrhea, pruritus of the nose or eyes, sneezing, wheezing and, in some cases, shock indicates that the limit of tolerance to the antigen has been exceeded. Following treatment of such a constitutional reaction, the physician should drop back two or three doses on the patient's schedule, and should progress with increases in dosage at half the previously-used rate.

The mechanism of action of hyposensitization is not known. The most widely accepted explanation involves the "blocking antibody" theory. Allergens act as antigens which stimulate the formation of reagin in certain susceptible individuals. Subcutaneous injection of an allergen depletes reaginic antibody, so that less reagin is available to react with the allergen upon exposure. The subcutaneous injection of an allergen elicits the formation of a "blocking antibody," which has a greater affinity for the allergen than reagin, but when combining with the allergen it does not release histamine.[11] Reagin circulates in the blood, but is also attached to the skin and mucous membranes of the nose, eyes and lower respiratory tract of the allergic patient. Blocking antibody, an IgG immunoglobulin, has no affinity for human skin or mucous membranes, but is capable of neutralizing the allergen. Blocking antibody increases the tolerance for increasing doses of injected allergen, but its level does not correlate with pro-

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Indications: Tybatran (tybamate) has afforded symptomatic improvement in a variety of psychoneurotic disorders, especially in the treatment of the anxiety and tension components of psychoneuroses. Anxiety states manifested somatically have responded to Tybatran (tybamate).

Tybatran (tybamate) has been useful in the control of agitation in the aged and in the alleviation of some of the adverse emotional accompaniments of senility.

Tybatran (tybamate) has been used with benefit in the treatment of depressive symptoms associated with anxiety and other symptoms of psychoneuroses. However, it is not indicated for primary treatment of depressive states. It is not an antipsychotic agent, although it has been used as adjunctive therapy in some psychotic patients.

Dosage: One 350 mg. capsule, 3 times daily and two at bedtime is suggested as the adult starting dose. Adjust to suit individual requirements. Daily doses above 3000 mg. are not recommended.

Contraindications: Known hypersensitivity to tybamate. Since no studies have been done with this drug in human pregnancy, it should not be used in pregnancy unless the potential benefit outweighs the risk.

Warnings: Administer cautiously to patients receiving phenothiazines or other CNS depressants or having history of convulsive seizures (See Adverse Reactions). Consider possibility of additive actions with alcohol or other psychotropic agents, particularly phenothiazines or MAO inhibitors.

Precautions: Avoid abrupt withdrawal after prolonged use, although withdrawal symptoms have not been reported to date. Exercise caution in addiction-prone individuals. If symptoms of hypersensitivity occur, discontinue at once and initiate appropriate symptomatic treatment. Avoid activities requiring optimal mental alertness if drowsiness or vertigo are present. As with any new drug, use cautiously in patients with history of drug allergies, blood dyscrasias, and hepatic or renal disease; periodic measurements of hepatic, hematopoietic and renal function should accompany prolonged and/or high doses.

Adverse Reactions: Most frequent reactions, rarely requiring discontinuation of tybamate, include drowsiness, dizziness, nausea, insomnia, and euphoria. There have been a few reports of skin rash, urticaria, and pruritus. Rare side effects include hyperactivity, fidgetiness, flushing, and tachycardia, suggesting excessive stimulation; also ataxia, unsteadiness, confusion, feeling of unreality, "panic reaction," fatigue, headache, paresthesias, vertigo, gastrointestinal disturbances, glossitis, and dry mouth. Grand mal or petit mal seizures have been reported in a few hospitalized psychotic patients receiving tybamate (up to 6000 mg. daily) together with phenothiazines and other psychotropic agents, but not with tybamate alone. Consider the possibility of rare, serious adverse reactions such as may occur with the related drug, meprobamate. If excessive amounts are ingested, gastric lavage and symptomatic therapy, including central stimulants as necessary, are recommended. Before prescribing, consult package circular.

Supply: Tybatran (tybamate) is available in green, sealed capsules of three strengths: 350 mg., 250 mg., and 125 mg. Each strength is supplied in bottles of 100 and 500.

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tection against natural exposure to the allergen.[8] Skin-sensitizing antibody, which is an IgE immunoglobulin, increases in two- to four-fold titer during the first two or three months of hyposensitization therapy, and then gradually declines. The decreasing level of skin-sensitizing antibody titer after many years of treatment correlates well with the decrease in clinical symptoms. The preponderance of evidence obtained from double-blind studies indicates that perennial aqueous hyposensitization with dust and pollen is effective in the treatment of allergic rhinitis in approximately 80 per cent of patients.[5, 6]

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THE JOURNAL *Book Shelf*



Book Reviews

Clinical Diagnosis by Laboratory Methods, Fourteenth Edition, by *Israel Davidsohn*, M.D., and *John Bernard Henry*, M.D. (Philadelphia, W. B. Saunders Company, 1969. $24.00).

This is a very well written book, which would be of value for physicians, medical students, and laboratory personnel. The new chapters dealing with isotopes, cytogenetics, and pregnancy tests are very good and contain as much information as any other general book in the field. The information is presented clearly and concisely, the language is easily understandable, the book is well organized, and specific subjects are easy to find.

Many up-to-date tests are included in this book, along with indications for each and possible results in patients with various diseases.

Todd-Sanford has always included superb illustrations, but has done even better with the colored plates on urine stained sediment. The blood and the fluorescent antibody pictures are also outstanding. Both black-and-white and colored illustrations complement the reading material, and make the book even more valuable and interesting.—*Joseph Song*, M.D.

Functional Pathology of the Surgical Spine, by *L. Penning*, M.D. (Baltimore, The Williams and Wilkins Company, 1968. $13.75).

Dr. Penning, a neuroradiologist in the Netherlands, presents a concise and scholarly monograph on the cervical spine in motion, as it were, as he studies the skeletal and neurologic disorders related to excessive mobility of the cervical spine.

He first describes what he calls a functional radiographic examination of the cervical spine, and details the lines of measurement. He next describes the functional anatomy as an expression of the motor mechanism of the cervical spine. The intervertebral discs and the intervertebral (apophyseal) joints are dealt with conventionally; but a new interpretation is given to the unicovertebral joints (joints of Luschka). Included is a biomechanical explanation (the equilibrium between change of cervical-spine form and preservation of neural function) of associated motor events.

In a separate chapter cervical spondylosis is detailed in comprehensive fashion. Congenital disorders, luxations, sprains, etc. are reviewed and analyzed. Then in the concluding chapter, the author discusses cervical spine injuries in a most practical way. He admirably sets forth the criteria for distinguishing hyperflexion from hyperextension injuries, and relates them to the neurologic findings.

This concise volume consists of 172 pages of text, 118 figures (diagrams and reproductions of radiographic films), and a worthwhile bibliography. Although radiologists, neurologists, neurosurgeons and orthopedists will find most use for this information, the book cannot fail to excite general medical interest as well.—*John T. Bakody*, M.D.

Fundamental Techniques of Plastic Surgery and Their Surgical Applications, Fourth Edition, by *Ian A. McGregor*, F.R.C.S. (Eng.). (Baltimore, Williams & Wilkins Co., 1968. $9.25).

This small but extremely useful book is now in its fourth edition. It was first published in 1960, and as a result of its excellence of form, style and presentation, it has proved to be in increasing demand.

The various techniques of plastic surgery, including wound care, skin grafting and the use of pedicles, are accurately described and superbly illustrated by drawings and photographs. The Z-plasty with all its modifications—a special expertise of the author—is graphically presented.

The book is to be highly commended for its clarity, its brevity, and its reliability. Beginners in plastic surgery will find here an accurate description of all the chief modalities in this branch of surgery presented by a master of the subject. If all surgeons, general or otherwise, were to read and heed this book, the general standard of wound care would be significantly improved.—*Julian M. Bruner*, M.D.

Structural and Dynamic Bases of Hand Surgery, by *Eduardo Zancolli*, M.D. (Philadelphia, J. B. Lippincott Company, 1968. $18.00).

This monograph sets forth the unique and brilliant concepts of the author, who is a professor of orthopedics at the University of Buenos Aires. The basis of this work was a careful and detailed study of the micro-anatomy of the structures involved, in particular of the ligamentous and retinacular systems of the hand, and of the kinetic forces which control the complex functions of the hand.

The problems of the paralytic claw hand, of the rheumatoid hand, and of ischemic contracture of the hand are presented with an approach which is fresh, and untrammeled by pre-conceived notions of anatomy and function. The surgical procedures proposed are ingenious.

Dr. Zancolli's beautiful drawings depicting detailed structure and function of ligaments, joints, tendons and muscles in health and disease have a Disney-like quality of animation about them. His text is meat for many years of study.

This book should be in the library of every surgeon

who aspires to improve hand function in these complex and perplexing disorders.—*Julian M. Bruner,* M.D.

SURGERY OF REPAIR AS APPLIED TO HAND INJURIES, 3RD EDITION, by *B. K. Rank,* M.D., *A. R. Wakefield,* M.D., and *J. T. Hueston,* M.D. (Baltimore, The Williams and Wilkins Company, 1968. $15.00).

The first edition of this admirable work was published in 1953 under the authorship of B. K. Rank and A. R. Wakefield. In the present third edition, a third author, J. T. Hueston has been added, having succeeded to the position of Honorary Plastic Surgeon to the Royal Melbourne Hospital, formerly held by his senior, B. K. Rank.

Although the organization of material presented under chapter headings is unchanged, approximately 100 new pages have been added. Also there are many new drawings and photographs of excellent quality. The book is eminently readable.

The outstanding features of this volume are its practicality, its advoidance of theoretical ideas and its insistence upon surgery not merely to restore anatomy, but to provide useful hand function, in as short a time and with as few operations as possible. For many years, Wakefield has proclaimed the importance of the primary operation to avoid the necessity of future reconstructive procedures, many of which would have been unnecessary if skilled primary repair had been carried out.

This reviewer knows of no other book which gives such sound advice, succinctly but comprehensively, on the treatment of injuries of the hand.—*Julian M. Bruner,* M.D.

CERVICAL SPONDYLOSIS AND ITS NEUROLOGICAL COMPLICATIONS, by *Bernard H. Smith,* M.D. (Springfield, Illinois, Charles C Thomas, Publisher, 1968. $12.00).

Spondylosis is a descriptive term capable of rather exact definition, but not sufficiently understood by all radiologists and medical practitioners. Briefly stated, there first occurs a chronic and commonly progressive degeneration of intervertebral discs, and a subsequent osteophytosis of adjacent vertebral margins. As applied to the cervical spine, spondylosis can involve intervertebral joint spaces from C2-3 through C6-7. (Of course, there is no intervertebral disc between C1-2.) Osteoarthritis (hypertrophic, degenerative, etc.) or osteoarthrosis affects the diarthrodial joints (apophyseal and unco-vertebral), and while such a process may be concomitant with spondylosis, it is not its equivalent. Nonetheless, a cervical spine showing characteristic x-ray changes of spondylosis is too frequently reported as "hypertrophic arthritis of the cervical spine."

Dr. Smith summarizes the roentgen findings in cervical spondylosis, as loss of lordosis, interspace narrowing, osteophytic spurring, posterior vertebral-margin sclerosis, vertebral-body deformity, and osteophytic encroachment on the intervertebral foramina (page 75).

The clinical findings in cervical spondylosis include discomfort and limited motion of the neck, segmental or radiculopathic signs and symptoms, and remote or long-tract alterations resulting from compression of the spinal cord. Dr. Smith discusses the findings in radiculopathy and myelopathy, and outlines the differential diagnosis. Vertebral-artery insufficiency is described as one of the complications of cervical spondylosis. The concluding chapter then details treatment, both medical and surgical.

In the past half dozen years, at least three monographs on the cervical spine and/or cervical spondylosis have been published, constituting testimony to the revival and reawakening of interest in this area of the body and its pathologic processes. This present text, by an American neurologist, is well written and illustrated, and provides an easy review of the current concepts, basic and clinical, of cervical spondylosis.—*John T. Bakody,* M.D.

BOOKS RECEIVED

MEDICAL SUPPLY IN WORLD WAR II, prepared and published under the direction of *Lieutenant General Leonard D. Heaton,* Surgeon General, United States Army. Editor-in-Chief, *Colonel Robert S. Anderson,* MC, USA. Editor for Medical Supply, *Charles M. Wiltse,* Ph.D., Litt.D. (Washington, D. C., Superintendent of Documents, Government Printing Office, 1968. $8.25).

PRACTICAL UROLOGY, by *Chester C. Winter,* M.D., F.A.C.S. (St. Louis, C. V. Mosby Company, 1969. $11.00).

MODERN TREATMENT, Vol. 6, No. 2, TREATMENT OF OBSTRUCTIVE PULMONARY INSUFFICIENCY, ed. by *Edwin R. Levine,* M.D., TREATMENT OF LYMPHEDEMA, ed. by *Alexander Schirger,* M.D. (New York, Harper & Row, 1969, $16.00 per year).

SYMPOSIUM ON THE SPINE, by American Academy of Orthopaedic Surgeons. (St. Louis, C. V. Mosby Company, 1969. $19.50).

GENETICS AND COUNSELING IN MEDICAL PRACTICE, by *Leonard E. Reisman,* M.D. and *Adam P. Matheny, Jr.,* Ph.D. (St. Louis, C. V. Mosby Company, 1969, $12.75).

ESSENTIALS OF GASTROENTEROLOGY, by *J. Ned Smith, Jr.,* M.D. and *Kyo R. Lee,* M.D. (St. Louis, C. V. Mosby Company, 1969. $14.75).

ORGANIZATION AND ADMINISTRATION OF HEALTH CARE, by *Richard L. Durbin,* A.B., M.B.A., M.P.A. and *W. Herbert Springall,* A.B., M.P.H. (St. Louis, C. V. Mosby Company, 1969. $9.85).

Students Hope to Establish Microscope Loan Program

Physicians willing to lend optically and mechanically usable microscopes to students at the University of Iowa College of Medicine should contact the Iowa Chapter, Student American Medical Association, U. of I. College of Medicine, Iowa City 52240.

According to SAMA representatives, "the burden upon a medical student with limited financial resources would be partially eased by his not having to purchase or rent a microscope."

Any student who arranges to obtain a microscope on loan would be required to purchase an insurance policy for the microscope, in the name of the lender.

SAMA officials will provide specific details regarding the proposed "Microscope Loan Program" to interested physicians, on request.

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INFORMATION FROM THE
IOWA HEART ASSOCIATION

Diagnosis and Treatment of Lipid Transport Disorders

ROBERT I. LEVY, M.D.
Bethesda, Maryland

All the circulating blood lipids are bound to specific proteins. When lipid transport is viewed in terms of these lipid-transport proteins (lipoproteins), rather than in terms of any individual lipid (cholesterol, triglyceride), greater specificity and definition can be imparted to the study and understanding of lipid-transport disorders.

The differentiation of hyperlipoproteinemia may be accomplished by sequential preparative or analytical ultracentrifugation. For most clinical purposes, simpler electrophoretic systems are adequate. At a fraction of the cost, using paper or agarose gel electrophoresis, one can obtain patterns that correlate well with ultracentrifugal patterns. Lipoprotein electrophoresis on paper and gel is rapidly becoming a routine procedure offered by many commercial and hospital laboratories.

There are at least five abnormal lipoprotein patterns that may be associated with hyperlipidemia. Each pattern is distinguished by an increase or abnormality in one or more of the normal serum lipoproteins. The lipoprotein patterns are not necessarily specific for a single disease. They may be primary, and many of them are also familial, or secondary to a host of different acquired disorders. The abnormal patterns are accompanied by clusters of clinical manifestations that allow them to be regarded as different syndromes.

Type I. This lipoprotein pattern is indicative of an inability to clear dietary fat (chylomicrons). It is nearly always familial, and in its severe form it is a rare disorder. The patients are usually young and have creamy plasma, lipemia retinalis, hepatosplenomegaly, eruptive xanthomata and bouts of abdominal pain associated with the ingestion of dietary fats. After standing in the cold, a discreet cream layer forms in plasma from these patients. Plasma cholesterols may be normal or elevated; triglyceride concentrations are grossly elevated (often above 5,000 mg. per cent). The familial disorder is recessively transmitted and is characterized by a deficiency in one or more of the enzymes involved in the clearance of fat from the circulation.

Therapy is relatively simple. Diets low in fat result in a dramatic clearing of the hypertriglyceridemia and a resolution of the associated abdominal complaints. There is no effective drug now available for the treatment of Type I. Supplementing the diet with medium-chain-length triglycerides (MCT) often makes the diet more palatable.

Type II or hyperbetalipoproteinemia is a common pattern found at all ages. It is characterized by a marked increase in otherwise normal beta lipoproteins. Though the plasma is almost always clear, cholesterol levels are often in the 300-600 mg. per cent range, and the plasma triglycerides are normal or only modestly elevated. Type II patients may have xanthelasma, arcus juvenalis, and tendon and tuberous xanthomata. Of note is the associated premature coronary-vessel disease and the often striking family history of early death. This makes it important for all physicians to recognize that the Type II abnormality is often familial and transmitted as a dominant trait with essentially complete penetrance. Though the Type II pattern may be secondary to excessive dietary cholesterol intake, myxedema, myeloma, liver disease or nephrosis, these causes can be quickly evaluated; and when such etiologies have been ruled out, the Type II patient's family should be examined. The patient's mother or father and 50 per cent of his siblings and children (diagnosable as early as age one) will have hyperbetalipoproteinemia.

Therapy for all of the secondary hyperlipoproteinemias should be directed at the acquired problem—i.e., thyroid replacement for myxedema. When this is not possible or when the disorder is primary, specific therapy should be directed to the hyperlipoproteinemia. Dietary therapy for Type II emphasizes a reduction in cholesterol content to below 200 mg. per day (through avoidance of eggs, many dairy products and fatty meats) and consumption of increased amounts of polyunsaturated fats. Most of the drugs available for hyperlipoproteinemia have little effect. Cholestyramine, a bile-acid sequestrant, in doses of 16-32 Gm. per day, has produced impressive reductions in cholesterol and beta lipoprotein levels. With a combination of a low cholesterol diet and cholestyramine, lipid levels can often be brought

Dr. Levy is head of the Section on Lipoprotein in the Laboratory of Molecular Diseases of the National Heart Institute, National Institutes of Health.

into the normal range in the Type II subject.

Type III is a relatively uncommon pattern associated with abnormal beta lipoprotein forms in the plasma. Patients have clear, cloudy or milky plasma, with elevations of both cholesterol and triglyceride concentrations into the 350-800 mg. per cent range. These patients often present in the third or fourth decade with planar xanthomata (orange-yellow lipid deposits in the creases of the palms of the hands) as well as tuberoeruptive (elbows, knees and buttocks) and tendon xanthomata. Commonly both premature coronary and peripheral-vessel disease occurs. Type III is usually familial, and apparently is transmitted as a recessive trait.

Dietary therapy for Type III emphasizes calorie control and a diet balanced in fat, carbohydrate and protein, and low in cholesterol. Clofibrate, 2 Gm. per day, is delightfully effective, especially when coupled with the balanced therapeutic diet. It results in a complete normalization of plasma cholesterol and triglyceride concentrations, resolution of external xanthomatosis and apparent improvement in peripheral-vessel flow.

Type IV is a very common lipoprotein pattern, most frequently seen after the second decade of life and often associated with diabetes mellitus and premature atherosclerosis. It is characterized by an isolated increase in endogenous triglyceride (prebetalipoproteins). The plasma may be clear, cloudy or milky, depending upon the triglyceride concentration. Cholesterol levels are frequently normal. The patients usually have no external stigmata. The pattern sometimes reflects a familial disorder transmitted as a dominant trait, with delayed expression. It may be that several different mutations are responsible. Often, however, it is secondary to other metabolic disorders, and whether primary or secondary, it is usually exacerbated by obesity.

Dietary therapy emphasizes reduction to ideal body weight, and reduction in the carbohydrate and alcohol content of the diet, with a concomitant increase in the amounts of polyunsaturated fats. Diet therapy alone often results in total normalization of the plasma lipids in Type IV. Drugs like clofibrate, D-thyroxin and nicotinic acid have been variably effective.

Type V is frequently secondary to acute metabolic disorders like diabetic acidosis, pancreatitis, alcoholism and nephrosis, though it may be familial. Patients with Type V usually become symptomatic after age 20, and may have all of the features of Type I: creamy plasma, hepatosplenomegaly and bouts of abdominal pain, often with frank pancreatitis. The patients often have multiple abdominal scars after years of occult abdominal pain. They appear to be intolerant to both dietary and endogenous fat, and on an unrestricted diet they have triglycerides in the 1,000-6,000 mg. per cent range, with mildly to markedly elevated plasma cholesterols. Abnormal glucose tolerance and hyperuricemia are frequently associated.

Diet therapy emphasizes caloric restriction, reduction to ideal body weight, and a diet high in protein and low in carbohydrate and fat. Clofibrate, D-thyroxin and nicotinic acid may all modestly reduce the triglyceride concentration, but often not to a significant degree.

The importance of going beyond the simple determination of cholesterol and triglyceride should be apparent. Five different types of hyperlipoproteinemia have been briefly characterized and discussed. Each is associated with a specific lipoprotein pattern that may be familial or acquired. Each is associated with specific clinical and laboratory signs, and a least three of the types (II, III and IV) are associated with premature vascular disease. Each type responds differently to dietary manipulations and specific drug regimens. Now, perhaps for the first time, it is possible for the clinician to apply relatively specific therapy to the patient with a lipid-transport disorder.

AHA Council on Cardiovascular Nursing

The American Heart Association has announced the establishment of a Council on Cardiovascular Nursing to disseminate reliable information in the field and help achieve the Association's objectives for improved patient care. The new Council will consist of registered professional nurses affiliated with Heart Associations in their local communities. Initial $5 dues will cover the period from July 1, 1969, through Dec. 31, 1969. Thereafter, dues will be $5 yearly.

There are nine other Councils functioning within the American Heart Association as professional societies with subspecialty interests in the cardiovascular field. They cover arteriosclerosis, basic science, cardiovascular surgery, cerebrovascular disease, circulation and renal diseases, clinical cardiology, epidemiology, high blood pressure research, and rheumatic fever and congenital heart disease.

The Council on Cardiovascular Nursing is an outgrowth of the Heart Association's Committee on Nursing Education. The first business session of the Council will be held in Dallas on Nov. 15, 1969, as part of a scheduled two-day Clinical Nursing Conference to be conducted in conjunction with the Association's annual Scientific Sessions.

Members of the new Council will be admitted without fee to the annual Clinical Nursing Conference. A $25 registration fee will be charged to non-members. Members also will gain free admission to the Scientific Sessions. They will receive summary notes of the Council's annual meetings

and advance programs of nursing conferences and scientific sessions, as well as bulletins and other educational materials. Members will be given preferential admission and reduced fees to postgraduate courses planned by the Council.

Since 1959, the Association has conducted programs on nursing education as part of its Scientific Sessions. It publishes a quarterly journal, CARDIOVASCULAR NURSING, to assist nurses in understanding heart and blood-vessel diseases, and a variety of other educational materials in the nursing area. Nationwide, the AHA sponsors short courses called "Three Days of Cardiology for Nurses" in cooperation with local Heart Associations and nursing divisions of universities and hospitals.

Membership application forms and additional information on the Nursing Council may be obtained from the Iowa Heart Association, 529-36th Street, Des Moines, Iowa 50312, or from Katharine A. Lembright, R.N., assistant director, Department of Medical Education, American Heart Association, 44 East 23rd Street, New York, New York 10010.

New Heart Monitor

More exact diagnosis of heart disorders can be made by use of a new electronic device, two University of Iowa pediatricians reported on June 3 at a symposium at the NASA Manned Spacecraft Center, Houston. Dr. Zuhdi Lababidi, a fellow in pediatric cardiology, and Dr. Ronald M. Lauer, a professor of pediatrics at the U. of I. College of Medicine, told participants about the results of their studies on 90 subjects whose cardiac cycles were monitored by a new technique—impedence cardiography.

Impedence cardiography measures changes in resistance to the flow of a small electrical current through the chest, unlike the familiar electrocardiography (EKG) which measures electrical impulses produced by the heart. "Impedence cardiography gives us a direct look at the time intervals of a person's cardiac cycle," Dr. Lababidi explained. "It is an easy way to get a reference tracing of heart sounds to confirm or clarify what the physician hears through his stethoscope," he said.

Dr. Lauer pointed out that by giving physicians specific measurements of the timing and duration of heart sounds and murmers, the technique provides data needed in making a diagnosis of heart disease, and often indicates the severity of the disorder. Other participants in the study were Drs. Dorothy A. Ehmke and Robert E. Durnin from the Department of Pediatrics, Dr. Paul E. Leaverton, of the Department of Preventive Medicine and Environmental Health, also took part.

The apparatus used to measure impedence is the Minnesota Impedence Cardiograph Model 202 developed and manufactured under the direction of Dr. William Kubicek at the University of Minnesota Department of Physical Medicine and Rehabilitation. The impedence cardiograph was developed at Minnesota so that NASA could measure stroke volume—the amount of blood pumped by the heart in one beat—without withdrawing blood from the body. The project is supported, in part, by NASA.

Medical Library Service Available to Physicians

Prompter, easier and more economical access to medical library resources will hereafter be available to physicians and allied health professionals in Iowa, thanks to a cooperative arrangement lately established by health sciences librarians of the state.

Mrs. Marion C. Samo, acting state medical librarian, announces that users of health-sciences literature may now employ the State Medical Library in the Historical Building, Des Moines (Zip Code 50319, Telephone 515-281-5772) as a medium of access to all such literature in the state, and also as a direct link with the Midwest Regional Library of the National Library of Medicine, in Chicago.

This arrangement will make free library service available to physicians, hospital personnel and all persons in the other health professions in Iowa. The service will include: loan of books and original articles; photocopying of desired articles from periodicals; and preparation of bibliographies.

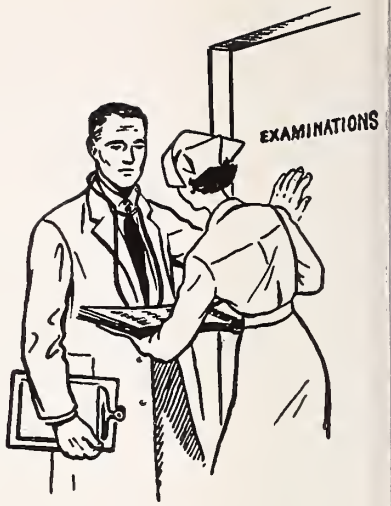
For some years, federal and state appropriations have made free library service obtainable from the State Medical Library. Now, under the new cooperative arrangement, back-up resources in the way of health sciences literature will also be supplied cost-free by the library of the University of Iowa College of Medicine, at Iowa City, the library of the National Animal Disease Laboratory, at Ames, and the libraries of the Veterans Administration Hospitals at Iowa City, Des Moines and Knoxville.

If access to the desired material still cannot be arranged, contact will be made with the Regional Library of the National Library of Medicine, bringing into play the National Library's MEDLARS Service (Medical Literature Analysis and Retrieval System). Through MEDLARS, patrons of the State Medical Library will be able to draw on the resources of medical libraries in the five-state Midwestern Region.

Mrs. Samo says that persons placing requests that can be filled by any of the cooperating libraries in Iowa will ordinarily find the needed material on the way within 24 hours.

Understandably, she says, more time will be required to provide information that must be acquired through utilizing the MEDLARS Service.

THE DOCTOR'S BUSINESS



Co-Insurance Contracts

HOWARD D. BAKER
Waterloo

The vast majority of building and property insurance today is written on a "co-insurance" basis. Yet in discussing this matter with our clients, we find that there is a rather general lack of understanding as to what "co-insurance" is and what it does.

The most general misconception is that if one has 80 per cent co-insurance and suffers a loss, the company will pay 80 per cent of the loss and the insured will pay 20 per cent, or if he has 90 per cent co-insurance, the company will pay 90 per cent of the loss and the property owner will stand 10 per cent. *This is incorrect!*

Co-insurance is an agreement between the company and the insured providing that the insured will maintain insurance coverage equal *at least* to a stipulated percentage of the value of the property insured. If he maintains the agreed percentage (80 or 90 per cent), the insurance company will cover 100 per cent of all losses up to the amount of insurance carried. So long as the coverage maintained equals or exceeds the agreed percentage of value, a co-insurance policy will pay the same loss claims as a regular policy.

Mr. Baker is a partner in Professional Management Midwest, and manager of its Retirement Planning Department. He majored in accounting and business administration at S.U.I., and was an agent of the U. S. Bureau of Internal Revenue for 3½ years before forming his present association in 1953.

The only time a co-insurance policy will pay less than a regular policy is when the insured fails to carry the agreed percentage of coverage. By failing to carry the agreed percentage, the *insured undertakes to bear that part of a loss which bears the same ratio to the total damage as the underinsurance bears to the agreed percentage of insurance.* Stated in another way, if the amount of insurance is less than the agreed percentage, *the insurance company will pay that proportion of the loss which the insurance carried bears to the agreed amount.*

The following table will illustrate the variations in protection afforded by differing amounts of insurance. In all instances the required amount of insurance is $16,000 (80 per cent of $20,000).

Co-insurance is designed to encourage policyholders to insure their property for amounts approximating the full value. As an incentive, a significant discount is offered on 80 and 90 per cent co-insurance contracts. This discount enables a policyholder to carry a larger amount of co-insurance for the premium that he would pay for a smaller amount of regular insurance.

The major precaution that one should take is to carry an amount of insurance that is sufficient on the basis of a realistic evaluation of the property insured. One should reassess such property every two to four years to make certain that the valuation is current.

Insurance Carried	Loss	Insurance Company's Share of the Loss	Insured's Share of the Loss
$14,000	$ 8,000	14/16 of $ 8,000 = $ 7,000	2/16 of $ 8,000 = $1,000
12,000	8,000	12/16 of 8,000 = 6,000	4/16 of 8,000 = 2,000
10,000	12,000	10/16 of 12,000 = 7,500	6/16 of 12,000 = 4,500
16,000	12,000	16/16 of 12,000 = 12,000	0/16 of 12,000 = -0-
16,000	18,000	16/16 of 16,000 = 16,000	Uninsured Portion 2,000
20,000	18,000	16/16 of 18,000 = 18,000	0/16 of 18,000 = -0-

STATE DEPARTMENT OF HEALTH

James F. Speers, M.D.

JAMES F. SPEERS, M.D., M.P.H., COMMISSIONER

Preventive Treatment for Tuberculous Infection

RECOMMENDATIONS OF THE NATIONAL COMMUNICABLE DISEASE CENTER

Most active tuberculosis in the United States today occurs among persons who were infected with Mycobacterium tuberculosis many year ago. Because these persons, who are positive tuberculin reactors, comprise the reservoir of future tuberculosis in this country, special priority on preventing this progression from latent to active disease should be an essential element in modern tuberculosis control programs.

Research conducted during the past decade has established that treatment with isoniazid can greatly reduce the risk that active tuberculosis will develop in tuberculin reactors.

Today the U. S. Public Health Service, the American Thoracic Society and the National Tuberculosis and Respiratory Disease Association recommend isoniazid *for persons identified as having tuberculous infections.*

PRIORITY CANDIDATES FOR PREVENTIVE TREATMENT

Although all infected persons may benefit from preventive treatment, priority efforts should be made to identify and treat individuals in the following groups:

1. Positive tuberculin reactors with "pulmonary fibrosis" or old fibrotic lesions presumably tuberculous in origin—former tuberculosis patients who have never had specific chemotherapy or who have had inadequate drug therapy (e.g., treatment for less than 18 months, no isoniazid, etc.). At particularly high risk are persons with pulmonary lesions of unknown etiology but compatible with tuberculosis, in whom active disease has been excluded.

2. Members of the household of a newly diagnosed tuberculosis patient, regardless of their tuberculin status. Preventive treatment for these household contacts should continue for a full year, even though exposure to the infectious case has ended and tuberculin tests remain negative. Preventive treatment should also be given to negative reactors who have had close, extended exposures comparable to those of persons living in the same household with a patient who has an active case.

3. Persons known to have recently become infected—i.e., converted from negative to positive tuberculin reaction.

4. Child reactors through the period of adolescence.

5. School personnel reactors and other adult reactors closely associated with children.

6. Tuberculin reactors forced into clinical situations known to lessen resistance to disease—e.g., prolonged corticosteroid treatment, gastrectomy, leukemia, silicosis, Hodgkin's disease, pneumoconiosis, severe or poorly-controlled diabetes, pregnancy and, in children, measles or whooping cough. In pregnant women, treatment should be started *in the last trimester.*

ISONIAZID FOR PREVENTIVE TREATMENT

For treatment of infection, a single drug, isoniazid, is generally used. The dosage is 300 mg./day for adults, and 10 mg./Kg./day for children (not to exceed 300 mg./day) for a period of 12 months.

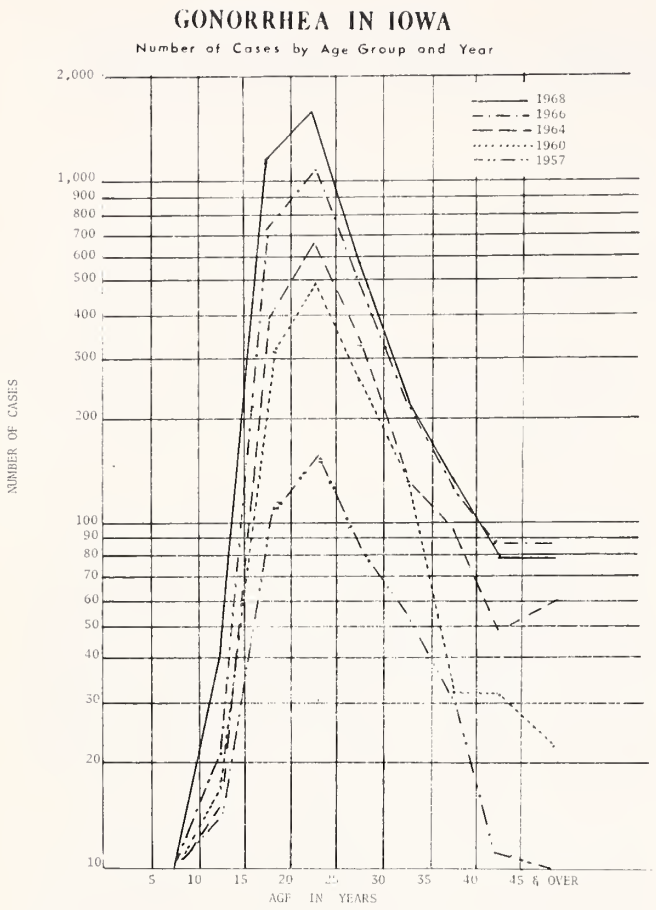
Public Health Service trials that started in 1955 among high-risk groups such as infected children, household contacts of an active case and persons with fibrotic lesions in the lungs have shown continued reductions in subsequent cases of tuberculosis ranging from 55 to 85 per cent after one year of isoniazid. These statistics tend to minimize the drug's effectiveness, actually, since some individuals in the study groups failed to take the medication regularly.

INTERPRETATION OF TUBERCULIN TESTS

Positive Reaction (10 mm. or more of induration). A reaction of 10 mm. or more of induration to the Mantoux test with 5 TU of PPD represents infection with mycobacterium tuberculosis. No confirmation test is necessary.

"Doubtful" Reaction (5 mm. through 9 mm. of induration). Reactions within this range can result from infection with any one of a number of mycobacteria, including M. tuberculosis. Clarification can be obtained either by a repetition of the test with PPD-tuberculin at a different site, or by simultaneous testing with PPD-tuberculin and another mycobacterial PPD, if available.

Negative Reaction (0 through 4 mm. of induration). No repeat test is necessary unless there is other clinical evidence suggestive of tuberculosis.



Gonorrhea has shown another increase in incidence. During 1968 gonorrhea cases were reported 4,002 times to the Department. Those were 542 more cases than were reported for 1967, and 971 more than for 1966.

In general the pattern of age-group distribution has been approximately parallel to the distributions for previous years. The highest incidence continues to be in the 15 to 20- and the 20 to 25-year age groups. Those are the expected peak age groups, since persons of those ages are the most active sexually and are most promiscuous.

A major change from previous age patterns is the increase in cases reported in the 10 to 15-year age group. The incidence in this age group almost doubled in the most recent two years for which figures are available. Although only 40 cases were reported in persons of this age group in 1968, the interpretation must be that there is an increase in sexual activity at younger ages. Since promiscuity is almost essential in the acquiring of venereal disease, one must assume that more than mere experimentation is involved. Because of the general affluence of the population, commercial prostitution is relatively rare nowadays. One must reach the conclusion, then, that there are increased sexual relationships among young people, and between youngsters and persons older than they.

The incubation period for gonorrhea—the period between exposure and the beginning of infectiousness—is only a few days. By the time a report can be received and our investigator can locate the case, a promiscuous person may have infected many partners. Consequently, important control measures must begin with the infected person. He must be taught the symptoms so that he will recognize that something is wrong. He must be taught that physicians can provide good, quick and successful treatment. He must be taught that non-physician treatment generally is worthless, and even dangerous. He must be taught to seek medical help quickly as soon as he notices symptoms. MOST IMPORTANTLY, HE MUST BE TAUGHT THAT CONTINENCE—THE AVOIDANCE OF EXPOSURE—IS THE BEST PREVENTIVE!

This last lesson is the hardest to teach, especially nowadays when traditional moral values have been undermined and are being replaced by liberalism. We do not decry change, but we regret that progress in some areas may be accompanied by retrogression in health or physical well being.

Monthly Report for Month of May, 1969

Diseases	May 1969	1969 To Date	1968 To Date	Most May Cases Reported From These Counties
Brucellosis	6	10	9	Polk
Chickenpox	589	3212	4549	Allamakee, Black Hawk, Des Moines, Linn, Marshall, Polk
German measles	637	2044	1634	Black Hawk, Des Moines, Hamilton, Humboldt, Pocahontas, Polk, Pottawattamie
Gonorrhea	415	1593	1548	Urban counties
Hepatitis, infectious	38	185	287	Appanoose, Polk, Pottawattamie
Hepatitis, serum	1	2	1	Lee
Impetigo	37	208	198	Dubuque, Polk
Infectious mononucleosis	67	340	197	Johnson, Polk, Woodbury
Malaria, P. vivax, imported	1	5	4	Polk
Measles	83	290	76	Polk
Meningitis, pneumococcal	3	4	0	Floyd, Johnson
Meningitis, type unspec.	3	9	7	Buena Vista, Linn, Pocahontas
Meningococcemia	1	1	0	Webster
Mumps	738	3777	9764	Allamakee, Black Hawk, Buena Vista, Floyd
Rabies in animals	7	39	66	Scattered
Salmonellosis	15	54	25	Polk
Shigellosis	1	7	28	Polk
Syphilis	75	312	327	Urban counties
Tuberculosis	11	57	51	Scattered
Whooping cough	1	6	45	Buchanan

MINUTES OF THE 1969 SESSIONS OF THE HOUSE OF DELEGATES

Iowa Medical Society

Des Moines, Iowa—April 27-30, 1969

(Alphabetical Index to the Minutes Can Be Found on Page 684)

SUNDAY SESSION, APRIL 27, 1969

The House of Delegates of the Iowa Medical Society was called to order by the speaker, Dr. Paul M. Kersten, of Fort Dodge, at 9:25 a.m., Sunday, April 27. The House of Delegates approved the taking of attendance by signed registration cards. There were 104 delegates, 8 voting alternates and 18 ex-officio members present.

County	*Delegate*	*Alternate*
Adams	J. C. Nolan	
Appanoose	E. A. Larsen	
Black Hawk	D. E. Conklin	
	Fred Dick, Jr.	
	L. L. Zager	
	C. D. Ellyson	
	G. R. Clark	
Boone	E. E. Linder	
Bremer	V. H. Carstensen	
Buchanan	L. J. Flage	
Butler	F. A. Rolfs	
Calhoun	R. P. Ferguson	
Carroll	H. L. Skinner	
Cerro Gordo	G. T. Westly	
	E. D. Kennedy	
	A. J. Herlitzka	
Clarke	J. D. Kimball	
Crawford	D. J. Soll	
Dallas-Guthrie	W. A. Castles	
	W. A. Seidler, Jr.	
Davis	Richard Schoonover	
Decatur-Ringgold	E. E. Gamet	
Delaware	J. E. Tyrrell	
Des Moines	J. F. Foss	
	F. G. Ober	
Dickinson	D. F. Rodawig, Jr.	
Emmet	H. A. Lindholm	
Fayette	R. S. Jaggard	
Floyd	K. P. Steimel	
Franklin	R. E. Munns	
Fremont	F. M. Ashler	
Hamilton	G. A. Paschal	
Hancock-Winnebago	L. R. Fuller	
Hardin	J. J. Shurts	
Harrison	J. W. Barnes	
Henry		W. R. Vaughan
Humboldt	Beryl Michaelson	
Ida	J. B. Dressler	
Jefferson	G. E. Egli	
Johnson	K. R. Cross	
	A. S. Norris	
	C. E. Radcliffe	
	E. O. Theilen	
	G. R. Zimmerman	
		K. J. Judiesch
		J. R. Maxwell
		R. D. Whinery
Jones	E. H. DeShaw	
Keokuk	Opas Jutabha	
Kossuth	R. E. Jongewaard	
Lee	G. C. McGinnis	
Linn	R. M. Chapman	
	J. J. Keith	
	H. R. Hirleman	
	W. J. Robb	
	R. A. Sautter	
Madison	R. W. Carson	
Mahaska	G. W. Bennett	
Marion	Peter Van Zante	
Marshall	L. O. Goodman	
	W. T. Shultz	
Mills		M. L. Scheffel
Mitchell	R. G. Boeke	
Monona	J. L. Garred	
Montgomery	Oscar Alden	
Muscatine		K. E. Wilcox
O'Brien	J. C Peterson	
Page	G. H. Powers	
Plymouth	J. P. Trotzig	
Pocahontas	J. B. Thielen	
Polk	Wallace Rindskopf	
	N. W. Irving, Jr.	
	J. L. Fatland	
	L. R. Pearlman	
	John Hess, Jr.	
	J. G. Thomsen	
	M. R. Saunders	
	D. J. Walter	
	M. H. Dubansky	
	A. N. Smith	
	W. R. Hornaday, Jr.	
	R. E. Hines	
		R. W. Hoffmann
Pottawattamie	A. L. Sciortino	
	M. E. Olsen	
	Hormoz Rassekh	
Poweshiek	H. R. Light	
Sac	C. D. Gibson	
Scott	R. P. Lagoni	
	J. F. Bishop	
	J. F. Collins	
	C. B. Preacher	
Shelby	J. H. Spearing	
Story	G. E. Montgomery	
	W. R. Bliss	
Tama	A. J. Wentzien	
Union-Taylor	R. H. Kuhl	
	R. W. Boulden	
Wapello	R. A. Hastings	
	R. P. Meyers	
Washington	C. W. Beckman	
Wayne	K. A. Garber	
Webster	L. J. O'Brien	
	F. D. Lawson	
Winneshiek	T. F. Dynes	
Woodbury	C. L. Beye	
	P. M. Cmeyla	
	R. C. Larimer	
		H. E. Rudersdorf
Wright	D. A. Harding	

LIAISON DELEGATES

S. P. Leinbach — J. M. Rhodes

OFFICERS PRESENT AS EX-OFFICIO MEMBERS OF THE HOUSE

C. W. Seibert	L. D. Caraway
W. M. Krigsten	H. J. Smith
J. F. Paulson	L. W. Swanson
V. L. Schlaser	E. M. Smith
T. A. Burcham	P. M. Kersten
J. H. Sunderbruch	R. C. Hardin
K. E. Lister	R. F. Birge
R. L. Wicks	O. D. Wolfe
H. G. Marinos	C. V. Edwards, Sr.

Minutes of the May 1, 1968, meeting of the House of Delegates were approved as published in the July, 1968, JOURNAL OF THE IOWA MEDICAL SOCIETY.

The Speaker of the House of Delegates introduced physicians who were serving in the House for the first time, and also the individuals who were seated at the head table. He announced reference committee appointments.

Reports in the 1969 HANDBOOK FOR THE HOUSE OF DELEGATES were approved as published, except the ten

resolutions beginning at page 94, since they were to be presented at a later time under the heading of new business; the report of the Committee on Blood Banking beginning at page 51 to and including page 53; the report of the Committee on Oncology appearing on pages 56 and 57; the report of the Subcommittee on Medical Examiner Law on pages 92 and 93; and the report of the Committee on Organ Transplantation appearing on pages 93 and 94. These portions of the HANDBOOK were all referred to the Reference Committee on Legislation and Medical Service.

(Following are the reports previously published in the 1969 HANDBOOK FOR THE HOUSE OF DELEGATES.)

Reports of Officers

FROM THE OFFICE OF THE SECRETARY

The Secretary of the Iowa Medical Society is responsible for maintaining membership and dues records; conducting the official correspondence, notifying members of meetings, officers of their election, and committee members of their appointments and duties; and preparing minutes of all official meetings of the Society. All methods of communication are utilized to aid the district councilors in organizing and improving the component societies, and in extending the influence and usefulness of the IMS.

The following paragraphs highlight some of the more important activities of the office of the secretary:

1969 ANNUAL MEETING

The Program Committee has developed an outstanding series of presentations for the 1969 Annual Meeting. The full day on Monday will be devoted to discussions relating to "The Delivery of Medical Care to the Rural Community." The major portion of the program on Tuesday is to deal with "Adult-Adolescent Hang-Ups." Physicians will have an opportunity to question the guest speakers and to participate in general discussion periods. The complete program for the Annual Meeting appeared in the March issue of the JOURNAL OF THE IOWA MEDICAL SOCIETY.

The office has cooperated with district councilors in organizing their caucuses in preparation for the Annual Meeting, and has helped in preparing for the meeting of the Nominating Committee.

HOUSE OF DELEGATES

The proceedings of the 1968 sessions of the House of Delegates were published in the July, 1968, JOURNAL. The usual administrative procedures in implementing directives of the House of Delegates have occurred. As a part of the 1969 Annual Meeting, the House of Delegates will hold its first session on Sunday, April 27, at 9 a.m. Reference committee hearings will begin as soon as possible, on Sunday, following adjournment of the House. The final session of the House of Delegates is scheduled for 8 a.m. on Wednesday. House of Delegates meetings will be held at the Savery Hotel.

EXECUTIVE COUNCIL

Three meetings of the Executive Council, the Society's interim policy-making body, have been held since the 1968 Annual Meeting, and a fourth session is scheduled on April 17. In addition, a special telephone poll of members of the Executive Council has occurred in order to take action on one specific and important legislative item. The Council has been kept apprised of important IMS projects and activities, and it has taken action, when necessary, on various policy matters. Special newsletters and the new IMS REPORT have been utilized to inform state and county medical society officers, delegates, deputy councilors and other leaders about the actions and decisions of the Executive Council, as well as about various committee activities and other items of special interest.

JUDICIAL COUNCIL

The Judicial Council has met on three occasions during the past year, and a fourth meeting is scheduled on April 16. J. F. Bishop, M.D., chairman of the Judicial Council, has prepared a report on the activities of that body, which appears elsewhere in the HANDBOOK. The principal responsibilities of the Judicial Council are to approve applications for IMS membership, to decide various questions relating to membership or ethics; and, if necessary, to discipline members of the Society.

BOARD OF TRUSTEES

The Board of Trustees has met on 11 occasions since the last session of the 1968 House of Delegates. In addition, a joint session was held with the Executive Committee of the Blue Shield Board of Directors. The Board of Trustees is scheduled to meet on three more occasions prior to the 1969 Annual Meeting. In addition to formal meetings, the IMS secretary and the staff maintain almost daily contact with the chairman of the Board and/or other officers of the Society.

COMMITTEES

Reports from the 50 standing and special committees of the Iowa Medical Society appear in this HANDBOOK, and some of those committees will also present supplemental reports when the House of Delegates convenes in April. Over 85 official committee meetings have been held in the Society's headquarters building during the past year, and several others are scheduled to occur prior to the Annual Meeting. That total does not include informal sessions between committee members and staff, or telephone conferences.

LIAISON WITH COUNTY MEDICAL SOCIETIES

A special conference for county medical society presidents and legislative contact men was held in Des Moines on Thursday, November 7, 1968. Emphasis was placed on matters relating to chiropractic, pharmaceutical legislation and health legislation to be considered by the 63rd Iowa General Assembly.

The IMS REPORT continues to be distributed on a regular monthly basis to county medical society presidents and other officers in an effort to keep them abreast of current issues facing medicine, as well as projects of the IMS.

Last fall, in cooperation with the University of Iowa College of Medicine and the Health Planning Council of Iowa, the Iowa Medical Society arranged a series of 16 area meetings on the subject of medical manpower, and all of the medical society members had opportunity to attend and participate. Officials of the Iowa Medical Society and representatives of Blue Shield were in attendance at each session in order to answer any questions concerning activities of the IMS and/or Blue Shield programs.

IMS FIELD SERVICE

On May 1, an integrated IMS/BS Field Service program became operative, and judging from the response of physicians throughout the state, it is meeting with great success. Under the new program, six field men are now serving the state—two IMS field service representatives (Mr. Gerald Buckles and Mr. Virgil Deering) who also serve as agents of Blue Shield, and four Blue Shield field service representatives (Mr. Edward Beacom, Mr. Merle Libby, Mr. John Larson, and Mr. Dean Jacobs) who also serve as agents of the Iowa Medical Society. Mr. Eldon Huston, the assistant executive vice president of the Society, is directing the joint field-service activities. The representatives are visiting with county medical society officers and member physicians on matters of interest to the medical profession and Blue Shield.

MAILINGS

The Society utilizes news bulletins, legislative bulletins and the IMS JOURNAL in keeping the membership informed and up-to-date on important programs and issues of the day. These materials are in addition to the voluminous amount of daily correspondence emanating from the headquarters office.

NATIONAL, REGIONAL AND STATE CONFERENCES

Following is a list of some of the major conferences and meetings at which the IMS was represented during the past year: AMA—Annual and Clinical Meetings, Conference on Nursing, Public Relations Institute, Disaster Medical Care Conference, Congress on Occupational Health, Annual Conference of State Medical Society Mental Health Representatives, Congress on Medical Education, Conference on Socio-Economics of Health Care; Conference on Rural Health; Regional Workshop on Medicine and Religion; Congress on Medical Ethics, Law Week, Conference on Community Health Planning, National Medical-Legal Symposium; Annual Meetings of the American Association of Medical Society Executives, American Political Action Committee, National Conference on Continuing Medical Education, Conference on Partnership for Health, Iowa Dental Association, Iowa Nurses' Association, Iowa Hospital Association, Iowa Veterinary Medical Association, Iowa Pharmaceutical Association and Iowa Academy of General Practice; National Blue Shield Program Conference; IMS/Congressional Delegation Conference; Iowa Blue Cross/Blue Shield Sales Conference; District X Blue Shield Conference; North Central Medical Conference.

IOWA REPRESENTATIVES AT THE NATIONAL LEVEL

The Society maintains close liaison with the AMA at the officer and staff level. Several members of the IMS served on AMA councils and committees, including:

D. F. Ward, M.D., Dubuque, Iowa, Council on Legislative Activities.

R. A. Berger, M.D., Davenport, Iowa, Committee on Quackery.

H. J. Smith, M.D., Des Moines, Iowa, Committee on Government Medical Services.

W. D. Paul, M.D., Iowa City, Iowa, Committee on Medical Aspects of Sports.

Robert G. Carney, M.D., Iowa City, Iowa, Committee on Cutaneous Health and Cosmetics.

W. C. Keettel, M.D., Iowa City, Iowa, Residency Review Committee—Obstetrics and Gynecology.

Dean M. Lierle, M.D., Iowa City, Iowa, Residency Review Committee—Otolaryngology.

Daniel B. Stone, M.D., Iowa City, Iowa, Archives of Internal Medicine.

William B. Bean, M.D., Iowa City, Iowa, Archives of Internal Medicine.

R. H. Flocks, M.D., Iowa City, Iowa, Residency Review Committee—Urology and Interspecialty Committee.

Four IMS staff members are active in the American Association of Medical Society Executives, and Mr. Donald L. Taylor, the IMS executive vice-president, is a past-president of that organization. Mr. Taylor is chairman of the AMA/AAMSE Liaison Committee.

SERVICES TO WOMAN'S AUXILIARY

The Woman's Auxiliary to the Iowa Medical Society utilizes the facilities and services of the Society in developing and implementing various projects, with assistance from Mrs. Hazel Lammey, a member of the executive staff. The staff also cooperates with the Auxiliary in arranging its annual meeting and board of directors' sessions, in preparing its annual reports, in maintaining its membership records, and in preparing and distributing the WOMAN'S AUXILIARY NEWS.

Major projects of the Auxiliary during the past year were sponsorship of a continental breakfast for wives of all members of the legislature and executive officers, and in addition, a special workshop for county Auxiliary officers and committee chairmen was held in the fall.

IMS MEMBERSHIPS

Iowa Medical Society membership for the year 1968 totaled 2,430. Of that number, 230 held active dues-exempt memberships as Life Members, Residents, or members in military service, and 60 were associate members, exempt from the payment of dues. There were 56 counties (composing 54 single or two-county societies) in which 100 per cent of the county medical society members held memberships in the IMS. Physicians ineligible for memberships numbered 55, and there were 150 eligible non-members in Iowa. The retired or not-in-practice physicians increased to 82. The percentage of membership in IMS was 94 for the year.

The new uniform dues billing and collection form, in use for the second year, appears to meet with the approval of a majority of the county societies and is being used by 98 per cent of the county society secretaries. Two of the larger county societies have chosen to continue with their own billing form because of a need to include additional items for their particular societies' business.

COUNTY SOCIETIES HAVING 100 PER CENT MEMBERSHIP IN IMS IN 1968

Adair	Cerro Gordo	Grundy
Adams	Chickasaw	Hamilton
Allamakee	Clarke	Hancock-Winnebago
Appanoose	Clay	Harrison
Audubon	Dallas-Guthrie	Howard
Benton	Delaware	Humboldt
Boone	Dickinson	Ida
Buena Vista	Franklin	Iowa
Butler	Fremont	Jackson
Carroll	Greene	

Jasper	Monona	Tama
Jefferson	Monroe	Union-Taylor
Kossuth	Montgomery	Van Buren
Lee	Muscatine	Wayne
Lucas	Osceola	Webster
Lyon	Plymouth	Winneshiek
Madison	Pocahontas	Wright
Mahaska	Pottawattamie	
Marshall	Sac	

1968 IMS MEMBERSHIP RECORD

County	Active Members	Associate Members	Resident Members on Resident License	Eligible Non-Members	Ineligible Non-Members	Not in Practice or Retired	Percentage
Adair	1	1	..	..	..	..	100
Adams	4	..	..	..	..	..	100
Allamakee	9	..	..	..	..	1	100
Appanoose	11	1	..	..	..	1	100
Audubon	3	..	..	..	..	..	100
Benton	12	..	..	..	..	..	100
Black Hawk	121	4	..	2	..	1	98
Boone	18	..	..	..	..	..	100
Bremer	16	..	..	1	..	..	94
Buchanan	20	..	..	1	4	..	95
Buena Vista	11	..	..	..	..	..	100
Butler	6	1	..	..	..	..	100
Calhoun	10	..	..	1	..	1	91
Carroll	22	1	..	..	..	..	100
Cass	8	..	..	1	..	1	89
Cedar	8	..	..	1	..	..	89
Cerro Gordo	70	1	..	..	..	1	100
Cherokee	20	..	..	10	6	..	67
Chickasaw	8	..	..	..	..	1	100
Clarke	6	..	..	..	..	..	100
Clay	12	..	..	..	..	..	100
Clayton	6	1	..	2	1	1	75
Clinton	38	2	..	5	2	..	75
Crawford	9	..	..	1	..	..	90
Dallas-Guthrie	23	2	..	..	3	..	100
Davis	13	..	..	1	..	..	93
Decatur-Ringgold	6	..	..	1	..	1	86
Delaware	7	..	..	..	..	2	100
Des Moines	52	1	..	4	..	2	93
Dickinson	7	1	..	..	..	..	100
Dubuque	64	2	..	4	..	3	94
Emmet	12	..	..	2	..	..	85
Fayette	16	3	..	1	..	1	94
Floyd	16	..	..	1	..	..	94
Franklin	7	..	..	..	..	..	100
Fremont	4	..	..	..	..	..	100
Greene	9	..	..	..	..	..	100
Grundy	7	..	..	..	..	..	100
Hamilton	10	..	..	..	..	..	100
Hancock-Winnebago	14	..	..	..	1	1	100
Hardin	13	..	..	1	..	..	93
Harrison	6	..	..	..	..	3	100
Henry	19	..	..	1	10	2	95
Howard	7	..	..	..	..	..	100
Humboldt	6	..	..	..	..	..	100
Ida	4	..	..	..	..	1	100
Iowa	13	..	..	..	1	..	100
Jackson	12	..	..	..	..	..	100
Jasper	21	..	..	..	..	1	100
Jefferson	11	..	..	..	..	1	100
Johnson	280	2	..	20	..	2	94
Jones	11	..	..	2	..	1	84
Keokuk	6	..	..	1	..	..	86
Kossuth	10	..	..	..	..	..	100
Lee	40	2	..	..	..	..	100
Linn	130	11	..	18	..	2	88
Louisa	2	..	..	1	..	..	67
Lucas	3	..	..	..	..	..	100
Lyon	6	..	..	..	..	..	100
Madison	4	..	..	..	..	..	100
Mahaska	17	..	..	..	..	..	100
Marion	12	..	..	6	8	3	67
Marshall	43	..	..	..	..	1	100
Mills	4	..	..	1	3	1	80
Mitchell	12	..	..	1	..	1	92
Monona	9	..	..	..	..	1	100
Monroe	3	..	..	..	..	..	100
Montgomery	11	..	..	..	..	..	100
Muscatine	16	2	..	..	1	2	100
O'Brien	9	..	..	1	..	..	90
Osceola	3	..	..	..	..	..	100
Page	18	..	..	4	12	3	82
Palo Alto	10	..	..	1	..	..	91
Plymouth	9	1	..	..	..	..	100
Pocahontas	7	..	..	..	..	1	100
Polk	334	12	..	13	1	22	96
Pottawattamie	66	..	..	6	..	1	92
Poweshiek	7	..	..	4	..	..	64
Sac	8	..	..	..	..	..	100
Scott	106	..	..	6	2	6	95
Shelby	7	..	..	1	..	1	88
Sioux	12	..	..	1	..	1	93
Story	56	3	..	6	..	1	95
Tama	8	..	..	..	..	..	100
Union-Taylor	15	..	..	..	..	..	100
Van Buren	3	..	..	..	..	..	100
Wapello	42	1	..	2	..	1	91
Warren amalgamated with Polk							
Washington	9	..	..	2	..	..	82
Wayne	2	1	..	..	..	..	100
Webster	56	..	..	..	..	2	100
Winneshiek	11	..	..	..	..	..	100
Woodbury	106	4	..	12	..	2	90
Worth	3	..	..	1	..	..	75
Wright	17	..	..	..	..	1	100
TOTAL	2,370	60	—	150	55	82	94

AMA MEMBERSHIP

The members of the Iowa Medical Society who were active members of the American Medical Association in 1968 numbered 2,308 (this number includes those who were active dues-exempt members because of life membership, residency or military service). In addition, 61 held associate memberships, and two held service memberships (working in Veterans Administration Hospitals) in the AMA.

The 2,308 AMA memberships in 1968 entitled Iowa to three AMA delegates. The 1968 Iowans' AMA memberships were 94.9 per cent of the total Iowa Medical Society memberships.

V. L. SCHLASER, M.D., *Secretary*

REPORT OF THE TREASURER

The 1968 IMS expenses exceeded income by $17,233.75.

The following financial statements set forth the fiscal status of the IMS as of December 31, 1968.

IOWA MEDICAL SOCIETY

Balence Sheet—December 31, 1968

ASSETS

Current Assets:		
IMS Checking Accounts		$ 23,425.31
CHAMPUS		5,000.00
Notes Receivable (Baldridge-Beye)		750.00
Pension and Disability Insurance—Due from Employees		1,388.95
Investments		13,063.54
Total Current Assets		$ 43,627.80
Fixed Assets:		
Land		$ 72,500.00
Building	$308,141.16	
Office Furniture & Equipment	34,950.99	

Less: Reserve for Depreciation	-64,965.00	278,127.15
Net Fixed Assets		$350,627.15
TOTAL ASSETS		$394,254.95

LIABILITIES AND NET WORTH

Liabilities:		
Notes Payable		$158,127.63
Accounts Payable		34,217.00
Accrued Advertising Tax		1,350.00
Accrued Mortgage Interest		3,165.51
Accrued Personal and Property Taxes		11,200.00
Deferred Compensation		13,063.54
Baldridge-Beye Memorial Fund:		
Note 12-31-68		750.00
Total Liabilities		$221,873.68
Net Worth:		
Balance 1-1-68	$189,615.02	
Less: Net Excess of Expenses over Income 1968	-17,233.75	
Balance Net Worth		$172,381.27
TOTAL LIABILITIES AND NET WORTH		$394,254.95

IOWA MEDICAL SOCIETY
STATEMENT OF INCOME AND EXPENSES

For the Year Ended December 31, 1968

Income for the Year 1968:	
Dues—State Society	$266,493.75
Interest on Investments	1,500.00
CHAMPUS	3,759.84
Miscellaneous	432.50
AMA Collection Commission	1,450.10
TOTAL INCOME	$273,636.19
Expenses for the Year 1968:	
Annual Session (Net)	$ 2,891.11
Council Expense	2,733.29
County Society Services	1,333.33
Depreciation—Building & Equipment	30,000.00
Dues and Subscriptions	1,794.50
Field Service	4,735.03
General Administrative Expense	1,371.89
Insurance	2,888.55
Interest Expense	7,752.88
Journal (Net)	17,230.35
Legal Expense	7,742.06
Lights, Gas & Water	6,300.77
Office Stationery & Supplies	6,414.38
Pension and Disability Insurance	5,932.18
Postage	6,040.66
Repairs & Maintenance	4,125.02
Salaries	89,769.09
Service Contracts—Machines	869.71
Taxes:	
Personal and Property	11,391.30
Social Security	4,302.46
Unemployment—Federal	241.59
Use	1,033.57
Telephone and Telegraph	8,334.64
Travel—Officers	10,392.71
Travel—Salaried Employees	13,691.49
Trustee Expense	4,509.09
Woman's Auxiliary	1,132.45
Committee Expense	35,915.84
TOTAL EXPENSES	$290,869.94
Net Excess of Expenses over Income for 1968	$ 17,233.75

THOMAS A. BURCHAM, M.D., *Treasurer*

BOARD OF TRUSTEES REPORT

As has been its custom, the Board of Trustees will present a detailed supplemental report to the House of Delegates at its opening session on April 27, 1969.

Delegates are urged to study the reports contained in the HANDBOOK, since they provide a comprehensive accounting of the programs and activities implemented by the IMS during 1968-69.

JOHN H. SUNDERBRUCH, M.D., *Chairman*

REPORT OF THE JUDICIAL COUNCIL

At the 1968-1969 organizational meeting of the Judicial Council, held immediately after the adjournment of the House of Delegates on May 1, 1968, Dr. J. F. Bishop was chosen as chairman, and Dr. E. E. Gamet as secretary. Dr. C. A. Trueblood became councilor for the Fifth District, and Dr. H. G. Marinos, though he could not be present for that first meeting, became councilor for the Second District. Shortly thereafter, Dr. G. A. Fry replaced Dr. C. N. Cooper as councilor for the Sixth District.

At its July, October and January meetings, the Judicial Council passed upon applications for membership in the IMS, applications for waivers of dues and other such matters. It also gave a hearing to representatives of the Iowa Chapter of the American College of Surgeons who objected to the joint-billing form that Iowa Blue Shield had begun using, with the Council's approval. The Council reaffirmed its decision that the joint-billing form was ethical, and declared that the question of whether assistants at surgery should be compensated in accordance with a fee schedule involved policy rather than ethics, and therefore was outside its scope of activity.

Dr. Gamet had attended the Second AMA Congress on Medical Ethics shortly before the October meeting, and he reported having been impressed, there, with the likelihood that the by-laws of hospital medical staffs in Iowa probably had been outdated by various developments in medicine and in the way in which medicine is practiced. He recommended, and the Council directed, that copies either of a California or of a JCAH set of model by-laws be distributed to the secretaries of all county medical societies in Iowa, in the hope that the secretaries would bring them to the attention of the hospital staffs of which they are members. That directive was carried out about a month or six weeks later, after the staff received a single copy of the California by-laws and mimeographed it. The JCAH set hadn't yet been published, it seemed.

The Council discussed the possibility of conducting a meeting for representative physicians and for clinic managers and medical management consultants to discuss ethical problems. Subsequently, when a report of that conversation had got about, the organization of clinic managers in Iowa sought to have representatives of the Council present a panel discussion on that topic at its meeting next summer, and the IMS Board of Trustees decided to make medical ethics the topic, or one of the topics, for the 1969 Fall Conference.

At the direction of the Judicial Council, the staff has presented some recent AMA Judicial Council opinions, on one occasion, and an address by an AMA Judicial Council member, on another occasion, in a "department" of the IMS JOURNAL entitled "Medical Ethics." Another paper of that sort is to appear in the forthcoming April issue of the JOURNAL. Member physicians are asked to watch for it.

JAMES F. BISHOP, M.D., *Chairman*

Reports of Standing Committees

ARTICLES OF INCORPORATION AND BY-LAWS

As of the publication date of 1969 HANDBOOK FOR THE HOUSE OF DELEGATES, the Committee on Articles of Incorporation and By-Laws has nothing to report. However it appears there may be a need to develop several amendments prior to the Annual Meeting. It is understood that proposals of the Osteopathic Committee (on medicine and osteopathy) and the Ad Hoc Committee to Study IMS Councilor Districts (on redefining councilor districts) may require amending of the Articles and By-Laws. If these proposals are received, appropriate amendments will be readied for presentation to and consideration by the House of Delegates.

O. D. WOLFE, M.D., *Chairman*

GRIEVANCE COMMITTEE

During the last year 19 cases were processed by the Committee, and to the surprise of all members, 30 per cent of the complainants did not choose to have their cases enter the investigational stage. This represents a new experience, for ordinarily complainants are quite persistent in seeing their particular problems persued intensively, and often continue to bombard our secretary by mail or phone after a case has been closed. It therefore is the consensus of the members that we are not only a committee for investigation and arbitration but also a sounding board where complainants may turn to vent their ire or ill feelings.

Several cases could be handled through skillful correspondence by our secretary, thus saving the Committee's time, and we therefore bestow our bouquet of "plastic flowers" upon Dr. Don Maland for his excellent secretarial work.

The members concluded that breakdowns of communications between physician and patient are still the predominant cause of grievances, and we wish to call this to the attention of Iowa physicians.

Since the physician is the "beast of burden" in the Medicare chain, having to explain to the patients over and over what it is all about, it is not surprising that his patience runs short at times. However this does not alter his position, for he is the first to receive blame if things do not work out as expected, even when misunderstood. Our call to our medical brethren is for more patience and for continuing effort at good communications.

The committee members are to be commended for their interest and fairness in their trying assignment.

F. O. W. VOIGT, M.D., *Chairman*

COMMITTEE ON HEALTH EDUCATION

At the 1968 Annual Meeting of the Iowa Medical Society, the House of Delegates approved a "Joint Policy Statement on Sex Education in Schools" developed in cooperation with the State Department of Health. Following the meeting, the statement was submitted to the State Department of Public Instruction for its consideration and action. Minor modifications were proposed by the Department which did not alter the intent or purpose of the statement, and it was officially released, as revised, in May, 1968, as the policy of the Iowa Medical Society, the State Department of Health and the State Department of Public Instruction.

The statement was published in the July issue of the IMS JOURNAL, along with an article on "Family Living and Sex Education" by Madelene Donnelly, M.D., chief, General Health Services, Department of Health, and a member of the Society's Committee on Maternal and Child Health. Copies of the statement were also distributed to all members of the IMS.

In light of the increasing interest and activity in matters relating to sex education, the Committee wishes to call attention to the Joint Policy Statement in its final form:

> "It is considered that sex education should be included and be a definite part of the health education curriculum of the elementary and secondary schools in Iowa. Programs of sex education must be carefully planned toward helping students be responsible members of our society. The basic materials included should be scientifically accurate and handled in a highly professional manner. The State Department of Health, the State Department of Public Instruction and the Iowa Medical Society can provide assistance in the development of such materials.
>
> "Sex education is currently being described as education for the masculine and feminine roles in society. Reproduction is only a part of these roles and relationships. Parents have a basic responsibility for sex education; the schools and certain other community agencies have supplemental roles.
>
> "In the schools and as part of the curricula, sex education is best taught by the classroom teachers and integrated into appropriate courses, with special counseling as needed. The extent and type of material presented should be integrated with other course materials according to the maturation levels of the children. This instruction should be started in kindergarten and followed throughout the primary and secondary school levels. At all levels, students should receive honest, factual answers to their questions.
>
> "For the satisfactory implementation of this policy, teachers at all levels should receive appropriate instruction in the necessary basic principles of natural, physical and behavioral sciences. Subject to the approval of the local county medical society, physicians may be called upon to consult with both teachers and students in the development and implementation of a sound program in sex education."

Your Committee chairman recently had opportunity to review, and comment on, a booklet titled, "Guidelines for Family Living and Personal Growth" which was prepared by the State Department of Public Instruction, in consultation with the State Department of Health. The booklet is to be distributed to all school districts in the near future. These three groups are cooperating with the University of Northern Iowa in its scheduled four-week 1969 Summer Institute

concerning the development of curricula in health education for elementary and junior high schools.

The Committee will keep the membership of the IMS apprised of further developments in the area of family-life and sex education programs.

The Society continues to assist in securing speakers for lay and professional group meetings and conferences, and on request it also provides various health education films and literature to physicians, schools, civic and service organizations, etc.

The Committee is pleased to note that the Iowa Health Council, of which the IMS is a member, is embarking on a statewide drug-abuse education program, geared to educators, students and parents.

Close contact is maintained with the State Department of Health in considering and developing various health education programs, and the Committee intends to continue this liaison.

C. E. ELLYSON, M.D., *Chairman*

COMMITTEE ON LEGISLATION

The 63rd Iowa General Assembly and the first session of the 91st U. S. Congress have recently convened, and several health-related items are under consideration by both bodies. In conjunction with IMS officers, representatives of the Committee on Legislation will be planning a trip to Washington, D. C., to meet with the Iowa Congressional delegation. On the state level, the Iowa Medical Society has undertaken a comprehensive legislative program, and the program has been and will continue to be reported to the membership through periodic Legislative Bulletins.

As this report is written it is still too early in the General Assembly's session to determine the outcome of legislation dealing with health. A comprehensive report on specific items of legislation will be presented to the House of Delegates as a Supplemental Report.

The county legislative contact men continue to serve as the grassroots liaison between physicians and state legislators. Without their dedicated assistance, the Society's legislative program would not be able to achieve any measure of success.

J. H. KELLEY, M.D., *Chairman*

SUBCOMMITTEE ON MEDICAL EXAMINER LAW

This special Subcommittee was organized early in 1968, and it made a brief preliminary report to the House of Delegates last year. Following the desire expressed by the House, the Subcommittee has undertaken a study involving all areas of the present medical examiner law, with particular attention to the establishment of a state crime-forensic-toxicology laboratory and the appointment of a state medical examiner (probably a forensic pathologist).

In carrying out this study the Subcommittee met on at least two occasions with representatives of the State Department of Health, representatives of the University of Iowa College of Medicine, and representatives of the State Bureau of Criminal Investigation. In addition, a questionnaire was mailed to each county medical examiner seeking information about the present fees for medical examiners, and comments on the existing law and regulations, and on the need for continuing education dealing with the duties of a medical examiner. The results of the questionnaire have been reviewed by the Subcommittee, and are playing an important role in its deliberations.

The Subcommittee has reported to the IMS Committee on Legislation, which in turn has reported to the IMS Executive Council. The Executive Council approved recommendations for Iowa (1) to create a crime-forensic-toxicology laboratory and to locate it in or near Iowa City; (2) to employ a forensic pathologist as state medical examiner, with the understanding that the medical examiner shall be free to accept a faculty appointment at the University of Iowa.

In this connection, it perhaps should be mentioned that there now is a forensic pathologist on the staff of the College of Medicine, serving as an associate professor in the Department of Pathology.

Subsequent to the action of the Executive Council, the Subcommittee has worked with appropriate individuals and organizations in an attempt to see that legislation embodying these broad principles is introduced in the 63rd Iowa General Assembly. Although specific legislation has not been introduced, as this report is written, it is anticipated that such a bill will be forthcoming. One of the problems surrounding such legislation relates to the amount of money necessary to finance such an operation.

The Subcommittee feels that it should continue to review the workings of the Iowa Medical Examiner Law, and determine whether additional modifications are necessary.

G. R. CLARK, M.D., *Chairman*

NECROLOGY COMMITTEE

The following members of the Iowa Medical Society died during 1968:

	Age
Aloysius A. Blum, Wall Lake	68
Arthur S. Bowers, Orient	89
Frank G. Carlson, Mason City	90
Walter Cary, Claremont, California	82
Floyd D. Christensen, Sioux City	45
John P. Cogley, Council Bluffs	69
Edmund S. Donohue, Sioux City	60
Harry H. Ennis, Iowa City	88
Douglas N. Gibson, Des Moines	65
Merrill W. Grubb, Galva	83
Henry J. Heusinkveld, Clinton	80
Charles S. Hickman, Centerville	85
Edward L. Hollis, Marengo	96
Edward M. Honke, Sioux City	58
Arthur W. Horst, Sioux City	44
George A. Jardine, New Virginia	80
Harry J. Jones, Cedar Rapids	86
Albert J. Joynt, Waterloo	82
John W. LaMar, Des Moines	39
Hugh G. MacLeod, Greene	74
Ernest C. Magaret, Glenwood	59
James W. Martin, Holstein	66
Donald F. Mirick, Clinton	49
Maurice H. Noun, Des Moines	65
Stephen A. O'Brien, Jr., Dubuque	46
Robert L. Parker, Des Moines	92
John C. Parsons, Des Moines	71
Emil C. Petersen, Atlantic	70
Loren G. Peterson, Des Moines	42
Furman P. Ralston, Knoxville	69
James E. Reeder, San Diego, California	81
Leslie V. Schroeder, Walcott	63
Charles F. Starr, Mason City	91
Fred Sternagel, West Des Moines	74
E. Martin Van Patten, Fort Dodge	57

Kenneth H. Weaver, Union 65
Frank N. Weber, Walnut 73
Julius S. Weingart, Des Moines 87
Harold T. Werner, Fort Madison 61
Lysle H. Whitmer, Muscatine 58
Albert L. Yocom, Chariton 81
Samuel J. Zoeckler, Des Moines 46

COMMITTEE ON MEDICAL EDUCATION AND HOSPITALS

The Committee on Medical Education and Hospitals calls attention to the following actions taken by the AMA House of Delegates at its 1968 Interim Session: (a) approval of "Essentials" for residency-training in family practice; and (b) establishment of a Recognition Award for physicians participating in continuing medical education.

Last fall, representatives of the IMS attended the first AMA Conference on Continuing Medical Education. During the program it was noted that there are now three major forces in medical education—the AMA, state and county medical societies and the Regional Medical Program. It was strongly emphasized that medical societies need to become more deeply involved in activities relating to medical education, and should assume leadership in evaluating existing and future programs. The conferees were also told that continuing medical education is a primary object of a state society and, further, that a state society should act as a catalyst rather than as a provider of programs.

The IMS was also represented at the AMA Congress on Medical Education, and at a meeting involving the Joint Commission on Accreditation of Hospitals, which was held in conjunction with the Congress, February 7-10. It was noted that in the JCAH-proposed standard draft form for hospital accreditation, it is indicated that physicians should serve on hospital boards of trustees. That proposal is strongly supported by organized medicine.

Your Committee chairman is privileged to serve on the Task Force on Medical Manpower which, among other things, is giving attention to the broad area of medical education as it pertains to increasing the supply of physicians for the state.

Excellent liaison and rapport are maintained with the University of Iowa College of Medicine through contacts by officials of the Society, as well as through the Committee on Medical Education and Hospitals and the Task Force on Medical Manpower.

R. N. LARIMER, M.D., *Chairman*

COMMITTEE ON MEDICAL SERVICE

The Society has continued this year to maintain its long-standing and strong interest in the four areas of basic concern to the Committee on Medical Service. These are (1) the provision of medical service under prepayment insurance systems; (2) the provision of medical services to the indigent; (3) the provision of medical services to veterans of the Armed Forces of the United States; and (4) the inter-relations of hospital and medical services.

There is a tendency for specific responsibilities in these areas to be assumed by other committees within the Society and, in some instances, by the Board of Trustees. Because of this trend, the Committee on Medical Service has been less active than in earlier years. Such components of the Society as the Subcommittee on Public Assistance and the Committee on the Economics of Health Care have become more directly involved with these matters.

As recently as January 22, 1969, the Board of Trustees of the Society and the Executive Committee of the Blue Shield Board of Directors held a joint meeting and the topics discussed included (1) the administration of Blue Shield Contracts; (2) payments to nonparticipating physicians; (3) the involvement of Blue Shield in the Medicare and Medicaid programs; (4) the membership standards of the National Association of Blue Shield Plans; and (5) the joint IMS/Blue Shield Field Service program. In all probability, more detailed information about these subjects will be contained in the supplemental report of the Board of Trustees to the House of Delegates.

The IMS continues to act as fiscal agent for the U. S. Department of Defense in the administration of the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). A new 12-month contract between the IMS and the Federal Office for Dependents' Medical Care became effective on January 1, 1969.

As previously reported, the CHAMPUS program has become more extensive and complex in recent years, thus entailing more work for the Society. A recent move to increase the administrative efficiency of the CHAMPUS program has resulted in the re-location of certain of the claims-processing tasks. These have been moved from Wisconsin Physicians' Service in Madison, Wisconsin, to Iowa Medical Service (Blue Shield), in Des Moines. It is felt that this action will serve to expedite claims-handling in the future.

During the calendar year 1968, the number of CHAMPUS claims processed by the Society totalled 9,031; these included some pharmaceutical claims, but represented mostly the services of physicians. The amount of money paid in 1968 under the expanded CHAMPUS program was $560,135. This is decidedly more than the 1967 figure of $360,450, and reflects the expansion of outpatient-care benefits for eligible dependents of active-duty personnel, as well as the provisions for increased inpatient services. Further, it reflects coverage provided to retired personnel and their dependents, and to handicapped children of active-duty personnel.

The Veterans' Hometown Care Program, according to VA officials in Iowa, is progressing satisfactorily. Last July a federal edict was issued that all veterans living within a radius of from 30 to 40 miles of a Veterans Hospital had to obtain care for service-connected disabilities at the government facility. Although that ruling remains in effect, it is being implemented on a somewhat flexible basis. In other words, in cases where travel to the facility represents a hardship, care may be obtained from a local physician. Veterans Hospital facilities in Iowa are located in Des Moines, Knoxville and Iowa City. Though the administrators of the Veterans Hometown Program report they must follow a schedule of fees, they attempt to be flexible and to pay usual and customary fees to the extent possible.

It is anticipated that the Society will be represented at the AMA's Third National Congress on the Socio-economics of Health Care to be held in Chicago on March 28 and 29. The theme of this meeting is: Major Issues in Health Care: The Challenge to Medicine. The previous two of these congresses have prompted wide-

spread discussion within and outside the medical profession.

The chairman has made a preliminary evaluation of the merits of supplanting the IMS Attending Physician's Statement with the standard insurance claim form developed by the Health Insurance Council. The IMS form has been in existence for some time and has been used by some member physicians. The merits of these two forms will be assessed further, and if a change seems desirable, it will be recommended.

G. G. YOUNG, M.D., *Chairman*

SUBCOMMITTEE ON MEDICAL PRACTICE IN HOSPITALS AND NURSING HOMES

Even though the Subcommittee on Medical Practice in Hospitals and Nursing Homes has not had occasion to meet this past year, the Society has continued to maintain close relationship with both the Iowa Hospital Association and the Iowa Nursing Home Association.

As an indication of this continuing liaison, it is a pleasure to report to the House of Delegates that both of these organizations accepted the invitation of the Society to share in sponsoring the "State of Health Care in Iowa" supplement published in DES MOINES SUNDAY REGISTER on November 24, 1968.

Incorporated into that public education project was a review of hospital and nursing home facilities in Iowa. For example, the report pointed out that there are 146 general hospitals in Iowa and approximately 22,000 beds. It mentioned that 27,000 persons are employed in Iowa hospitals, representing an annual payroll of about 105 million dollars. Of the 146 licensed Iowa hospitals, 76 are accredited by the Joint Commission on the Accreditation of Hospitals, and better than 90 per cent of the state's hospital beds are in those 76 JCAH hospitals.

With respect to nursing homes in Iowa, the report indicated there are 498 licensed nursing homes and 333 licensed custodial homes, with a total of 11,236 beds. There are 78 Medicare-certified "extended-care facilities" in Iowa, of which 60, containing 3,391 beds, are nursing homes. The others are affiliated with hospitals. In addition to the ECF's, which qualify by virtue of having acquired that designation, there are seven other nursing homes which have been certified as "skilled nursing homes" to render care in Iowa under the Medicaid program.

To illustrate the extent of the nursing home building boom, we can point out that since 1959, 196 totally new nursing homes have been constructed in Iowa, containing 10,449 beds. The average number of beds in these new homes is 53. Another 54 existing homes have built additions, accounting for 1,223 beds. This means that more than half of the nursing home beds in Iowa have come into existence since 1959.

There continue to be many vexing Medicare and Medicaid problems of primary concern to hospitals and nursing homes, and they also trouble all physicians. These have to do with utilization review, determination of charges, minimum wages, acquisition and retention of personnel, etc. The nursing-home administrators are confronted with a federal requirement that their institutions qualify for licensure by 1970. State legislation to establish such a licensing program is now in the proposal stage.

Each of these several factors has a definite bearing on the state's ability to provide high quality care for its citizens, and underscores the need for united effort from the various members of the health care team.

C. B. PREACHER, M.D., *Chairman*

SUBCOMMITTEE ON HOME HEALTH SERVICES

This year the chairman of the Subcommittee on Home Health Services has had an opportunity to represent the Society on the Iowa Council for Homemaker Health Aide Services. This Council has been in the formative process for the past year or two, and in 1968 it took on a more nearly permanent status following the development and approval of a set of By-Laws.

The Council has a three-fold purpose: (1) To develop and strengthen community homemaker health aide services; (2) To gather and distribute information; establish relationships with and assist community groups; educate the public; encourage and develop standards; and speak out for the improvement of services; and (3) To operate on a non-profit basis for charitable and educational purposes.

It may be informative to point out that in the past several years Iowa has produced home health services for the first time for more than 300,000 citizens. Sixty-three counties now have public health nurses; there are 19 visiting nurses' associations in the state, and there are 31 homemaker-home health aide programs. Some of these are county programs and some are multi-county. Most have come into existence since 1963. They vary considerably in their degree of comprehensiveness.

Payments for home health services provided under the Iowa Medical Assistance Program (Title XIX) have been averaging in the vicinity of $8,000 a month, according to recent reports of the State Department of Social Services.

The Subcommittee will remain alert to developments in this area and will consider those matters referred to it.

J. F. VEVERKA, M.D., *Chairman*

MEDICO-LEGAL COMMITTEE

The interest of the Society in considering revisions in malpractice-trial procedures is expressed in the report of the Iowa Bar Liaison Committee. It is quite likely that the Medico-Legal Committee will assist in considering this matter.

Other than this, no subject has been brought to the attention of this Committee.

A. L. JENKS, JR., M.D., *Chairman*

COMMITTEE ON PUBLIC RELATIONS

The Public Relations Committee is pleased to note the many continuing and new P/R-oriented programs being implemented by the IMS through its various committees and staff members which enhance the prestige and stature of the medical profession in the eyes of the public.

Of major interest to the Committee during the past year was the development of the special newspaper supplement "State of Health Care in Iowa" which was distributed as a part of the November 24 edition of the DES MOINES SUNDAY REGISTER. Although many professional and health-oriented groups served as co-sponsors of this project, the IMS assumed responsibility for actually promoting, designing and preparing the

supplement. The staff is to be commended for its efforts in this regard.

The report demonstrated to the public how Iowa's health professionals are serving effectively now, and how they are involved in meeting the many health care challenges.

April, 1968, marked the tenth anniversary of the Hawkeye Science Fair, a project spearheaded by the IMS. Co-sponsors of this well-regarded educational project are the DES MOINES REGISTER AND TRIBUNE, Drake University and the Scanlon Medical Foundation/Iowa Medical Society. Over 600 junior and senior high school students displayed scientific exhibits during the two-day event. In commemoration of the Fair's ten-year milestone, a special luncheon was held for previous HSF scholarship and award winners, as well as for contributors to the Scholarship and Award Fund. It is interesting to note that of the 50 scholarship winners, at least 16 have earned the baccalaureate degree; several have masters' degrees; four are candidates for the doctor of philosophy degree; and two others are candidates for the doctor of medicine degree.

The 1969 Hawkeye Science Fair will be held April 4-5, at the Veterans Memorial Auditorium in Des Moines.

As a member of the Iowa Health Council, the Society participated in the "Hall of Health Exhibit" at the 1968 Iowa State Fair. The IMS arranged for the display of an outstanding AMA exhibit on "The Development of the Fetus," and it proved to be the outstanding attraction in the Hall of Health. The project will again be sponsored by the IHC during the 1969 State Fair.

The Society participated in Community Health Week activities, October 20-26. Special materials developed by the AMA were sent to county medical societies to assist them in developing projects during this period, and the IMS released a news story calling attention to the observance.

The Medical-Radio-Press-Television Code of Cooperation has been updated and distributed to all members of the participating agencies—the IMS, the Iowa Nurses' Association, the Iowa Hospital Association and appropriate press and radio-television groups. Attention was also called to the updated Code in the August "In the Public Interest" section of the IMS JOURNAL.

The "In the Public Interest" section continues to be mailed each month to all news outlets in the state, as well as to all Iowa legislators. Subjects covered during the past year included medical manpower, Grievance Committee, drug abuse, health legislation, Medicaid, etc.

Liaison is maintained with local press, radio and television outlets, and with the wire services. An effort is made throughout the year to provide information to the press on special projects of medical interest, and also to respond to articles which may not accurately have reflected the Society's involvement in or position on matters relating to health and health care.

The Annual Meeting provides an opportunity for concentrated radio, television and press coverage, and every effort is made to capitalize on that occasion for informing the public regarding advances in medical science, and regarding programs and projects of organized medicine.

A major project of the Task Force on Medical Manpower during the coming year will be the sponsorship of a series of area meetings for professional and community leaders, at which matters pertaining to medical manpower and the delivery of health care will be discussed. The co-sponsors of this project will be the University of Iowa College of Medicine and the Health Planning Council of Iowa.

Representatives of the IMS attended the annual AMA Public Relations Institute in Chicago last August. In closing this report, we wish to call to the attention of all physicians the following statement made by one of the speakers: "The Foundation for sound public relations remains in the individual relationship between physician and patient. . . . The voluntary association of two individuals—one seeking, and one giving relief—is the heart of the art of medicine."

F. H. ENTZ, M.D., *Chairman*
M. E. ALBERTS, M.D., *Co-Chairman*

SUBCOMMITTEE ON INTERPROFESSIONAL ACTIVITIES

In keeping with precedent, the Committee on Interprofessional Activities met with a similar committee of the Iowa Pharmaceutical Association last fall to consider items of mutual interest and concern. Special attention was given to a review of the Iowa Drug Abuse Control Act. IMS representatives underscored the position of the Society that there should be "enlightened enforcement" of the law on occasions when there is no evidence to indicate involvement in illicit drug traffic.

The Subcommittee developed an informational program for physicians regarding drug-abuse controls. Special bulletins on the subject were mailed to members of the Society, articles about it were published in the JOURNAL, and over 250 kits containing resource materials were provided to physicians, on request.

In its joint meeting with IPhA representatives, the Subcommittee also reviewed an opinion issued by the attorney-general on April 1, 1968, in response to a question posed by the director of the Division of Narcotics, in which it was ruled that "medical practitioners are authorized to prescribe, administer and dispense prescription drugs, but nurses or aides can only administer such drugs, and then only under the direction of a medical practitioner." The IMS challenged that opinion, and a memorandum prepared by legal counsel has been submitted to the attorney-general urging that the opinion of April 1, 1968, be revised to permit both the administering and dispensing of drugs by a nurse, aide or other qualified person, when he or she does so under the direction and supervision of a physician.

IMS representatives have expressed concern to the IPhA and to the Iowa Nurses' Association about the development of a joint agreement approved by the IPhA and INA regarding "The Legal and Professional Aspects of Drug Dispensing and Administration." The agreement, developed without consultation with medical representatives, states in essence that pharmacists may legally dispense drugs and nurses may legally administer drugs, but neither may take the other's role. Pharmacy officials have contended that the statement is merely a guideline for professional practice, and is not binding.

Your Committee chairman is privileged to represent the IMS on the Board of Directors of the Iowa Health Council (formerly the Iowa Interprofessional

Association) along with another committee member, S. P. Leinbach, M.D., and Mr. Donald L. Taylor, the Society's executive vice-president. Mr. Taylor serves as secretary-treasurer of the Iowa Health Council.

As a result of recent reorganization, the IHC has expanded its original membership (consisting of the IMS, the Iowa Dental Association, the Iowa Pharmaceutical Association, the Iowa Veterinary Medical Association, the Iowa Nurses' Association, and the Iowa Hospital Association) to include the Iowa Society of Osteopathic Physicians and Surgeons. An application for membership from the Iowa Nursing Home Association is pending, and it is anticipated that other qualified groups will be considered in the future.

During the past year, the IHC was actively involved in a drug-abuse education program, and plans are currently underway to sponsor a statewide Conference on Drug Abuse in the fall, geared to educators, communicators, students and parents.

The Council has also continued its sponsorship and coordination of the "Hall of Health" exhibit section at the Iowa State Fair. Exhibits from all member organizations, as well as from other health oriented groups, are displayed, and several thousands of people visit the special health section.

C. E. RADCLIFFE, M.D., *Chairman*

COMMITTEE ON STATE DEPARTMENTS

It has become a custom in this brief report to mention that the Committee on State Departments consists of the chairmen of six separate subcommittees. Each of these subcommittees has a liaison relationship with an agency or department of state government. As previously reported, it is at the subcommittee level that much of the work is accomplished. The subcommittees, the individual reports of which follow this one, and are commended to you, are Maternal and Child Health, Public Assistance, Aging and Chronic Illness, Rehabilitation, Safe Transportation, and Psychiatric Care. Most of them have been active this past year.

The creation of the new State Department of Social Services has necessitated some moderate realignments in the liaison activities of the subcommittees, notably those of the Subcommittee on Psychiatric Care. So far as is known, this has gone smoothly.

The Society is privileged to advise and work with the State Department of Health on a variety of programs and projects. The IMS JOURNAL publishes bulletins and special articles on current public health problems which the Department of Health wishes to bring to the attention of the medical profession. The Society is also provided several copies of a monthly summary of Department of Health activities, and these are made available to appropriate IMS members.

It is a pleasure for the Committee on State Departments to acknowledge in this report the re-appointment of James F. Speers, M.D., M.P.H., as Commissioner of Health for the State of Iowa. During his first year as Commissioner, Dr. Speers has demonstrated a sincere desire to keep the Society informed about the Department's programs and to seek the counsel of the medical profession.

The chairman represented the Society, in 1968, at a conference on public health conducted by the Iowa Tuberculosis and Respiratory Disease Association. That one-day conference was held in Des Moines, and the participation of the Society appeared to be appreciated.

It is a pleasure to serve as chairman of this parent committee and to offer this introduction to the subcommittee reports which follow.

A. H. DOWNING, M.D., *Chairman*

SUBCOMMITTEE ON AGING AND CHRONIC ILLNESS

As previously reported to the House of Delegates, two members of the Subcommittee have served for the past two years on a six-member Advisory Committee to the Chronic Illness and Aging Service of the State Department of Health. That Committee assisted in preparing a 235-page publication entitled, THE PHYSICAL THERAPY MANUAL FOR PHYSICIANS. The booklet, completed last December, attempts to provide medical practitioners with a review of the current theory and practice in physical therapy. The Society is now assisting the Department of Health with the distribution of the manual to all Iowa physicians. In addition to the two representatives from the Subcommittee, a member of the IMS Subcommittee on Rehabilitation served on the Health Department's Advisory Committee.

In recent months the Society has attempted to provide information through bulletins and the JOURNAL OF THE IOWA MEDICAL SOCIETY on the general status of the prevalent influenza viruses. It has been recommended that the limited vaccine supplies be provided first for the aged and chronically ill.

The chairman of the Subcommittee is encouraged by the increased opportunity for aged and chronically ill Iowans to have some of their health care needs met in or near their homes. It has been estimated that in the past two years such services have become available for the first time to 326,000 Iowans. There are now 63 Iowa counties with a public health nurse serving in a variety of ways; 13 of these counties have two or more such nurses, and 10 counties are certified to provide home health care under Medicare. There are 19 visiting-nurse associations in the state, six of which have expanded their services to cover entire counties instead of just a community. All 19 of these are Medicare-certified.

It is generally known that Iowa's proportion of elderly to total population is greater than any other state's. It is perhaps less well known that the most recent life-expectancy figures rank Iowa second (71.9 years) in the nation. These factors underscore the need for a continuing interest in and provision for the health care of the aged.

G. E. MONTGOMERY, M.D., *Chairman*

SUBCOMMITTEE ON MATERNAL AND CHILD HEALTH

The Subcommittee on Maternal and Child Health met on February 19, 1969, principally for the purpose of providing a forum for the disucssion of circumstances surrounding the conduct of a recent mass measles immunization program in Council Bluffs.

That mass clinic occurred on December 12, 1968, at two school buildings in Council Bluffs, under the auspices of the State Department of Health. The clinic had been adjudged necessary by the Preventive Medical Service of the Department of Health, essentially on the basis of cases of measles reported by school nurses.

A. M. Reeve, M.D., chief of the Preventive Medical Service, State Department of Health, told the Subcommittee that 45 cases of measles were identified in

Council Bluffs early in December. He said the entire state, up to that time, had had only 108 reported cases of measles. He explained that the relationship of these two figures justified the use of the word *epidemic*.

Dr. Reeve reported that more than 6,000 children were immunized in the one-day clinic, and he indicated that two Public Health Service physicians were brought in by the Department to assist with the administration of the immunizations.

The Pottawattamie County Medical Society objected strongly to the conduct of the clinic and to the use of its name as a sponsoring body. It was acknowledged that there had been some communication between Dr. Reeve and representatives of the County Society, but a meeting of the minds as to the need for a mass clinic did not occur, and what appeared to be some adverse newspaper and television publicity for the local physicians resulted from it. The exchange of letters between the Pottawattamie County Medical Society and the Commissioner of Health was reviewed by the Subcommittee.

Elmer O. Bean, M.D., who attended the February 19 meeting on behalf of the Pottawattamie County Medical Society, elaborated on the correspondence and presented the point of view of the Council Bluffs doctors. Dr. Bean said that in his judgment and in that of his colleagues, there was positively no epidemic of measles in Council Bluffs. He indicated there might have been as many as 15 to 20 cases, and he added that they were located principally in an area occupied by a transient group of approximately 150 families. He explained that the County Society has operated a once-a-month Saturday immunization clinic for some time. He cited high local immunization statistics to support (1) the good record of immunizations in physicians' offices, and (2) the effectiveness of the clinic operation.

Dr. Bean questioned the reported success of the Department of Health's clinic. He indicated that local doctors had had to care for a number of reactors among the children following the clinic, and he suggested that a fair number of the children who attended the clinic were immunized for a second time. He concluded by saying that this was a matter which the physicians of Council Bluffs would have preferred to care for themselves, and that they resented what they felt to be an intrusion by the State Department of Health.

James F. Speers, M.D., M.P.H., Commissioner of Health, who participated in the meeting, declared that the primary responsibility of the Department of Health is to the people. He said that although the Department attempts to cooperate and in most instances does cooperate with county medical societies, it must retain its right to function independently when it believes such action is warranted.

The Subcommittee's extended consideration of the case concluded with (1) an expression of apology from Dr. Reeve, in which he indicated his regret over not having secured the full blessing and cooperation of the Pottawattamie County Society; (2) a companion comment from Dr. Reeve that he believed strongly he was doing the right thing in proceeding with the project; (3) an acknowledgment by the several concerned parties that an unfortunate breakdown in communication had occurred, one which should not be repeated if it could possibly be avoided; and (4) a reaffirmation of the "Statement of Policy Concerning Circumstances of Immunization Administration" developed by the State Department of Health and endorsed by the Iowa Medical Society.

In that Statement the office of the physician is noted as the most appropriate place for a person to receive immunization. In descending order, other means for obtaining immunizations are sanctioned. The Statement declares: "Under certain circumstances, when widespread administration of immunization is required, mass immunization clinics operated under the auspices of medical societies or governmental agencies may be required. These are less desirable than an established public health clinic."

In recommending endorsement of this Statement in 1967, the Subcommittee on Maternal and Child Health subscribed strongly to the use of the physician's office for the administration of immunizations. It further underscored the importance of having all mass immunization clinics operated with the approval and under the guidance of a county medical society.

Several communications from other county societies inquiring about the immunization activities of the Department of Health were reviewed with the government representatives.

It was the consensus of the Subcommittee that the meeting had served a useful purpose and had helped to clear the air. The suggestion was made that in any future instances where communications seem not to be moving satisfactorily, the Department might be well advised to consult the IMS and obtain its recommendations.

The Subcommittee was brought up-to-date on the status of proposed legislation to liberalize Iowa's therapeutic abortion law. The Subcommittee last year recommended endorsement of the AMA guidelines on this subject, and with the help of the Society's legal counsel, devised additional guidelines. The Subcommittee was advised that a bill had been drawn and introduced at the General Assembly. As this report is prepared, this legislative proposal is receiving the careful consideration of the General Assembly. The Subcommittee is pleased that one of its members, D. O. Newland, M.D., has functioned effectively as a spokesman for the Society before the General Assembly.

The Subcommittee reviewed several other subjects at its meeting: (1) the prevalence of venereal disease in Iowa, and particularly the impact of the Clinton Job Corps in this respect; (2) the continuing participation by the Society in the Iowa Youthpower Project; and (3) the activity of the Sports Medicine Committee with respect to the determination of the weights at which boys should wrestle.

W. J. BALZER, M.D., *Chairman*

SUBCOMMITTEE ON PSYCHIATRIC CARE

The Subcommittee was authorized to assume a new name this year, changing from the Subcommittee on Nervous and Mental Diseases to the Subcommittee on Psychiatric Care.

The Subcommittee has met a number of times, and has applied itself diligently to the tasks at hand. Although all the objectives have not been achieved, progress has been made.

The Subcommittee was directed by the House of Delegates to study in depth and make recommendations concerning the development of comprehensive mental health center programs in Iowa. It was encouraged to study insurance coverage for psychiatric

care, and to develop and maintain lines of communication with the State Department of Social Services and the Iowa Mental Health Authority.

In undertaking the study of comprehensive mental health programs, the Subcommittee worked out lists of questions and factors related to these programs in various communities, and has attempted from this information to formulate a statement for the guidance of the Society's members. This fact-finding included a study of the various modes of delivering care; the federal regulations; the present operation of programs in the state, however organized; and the education of psychiatrists and other physicians.

The Subcommittee has found itself in agreement on certain basic principles. Some of these are that the overall goal should be the best possible care for the people of Iowa; that all physicians should be involved in the psychiatric-care program; that too much stress cannot be placed on good psychiatric training for all physicians in medical school, residency and practice; and that local medical societies should become actively involved in overseeing and working for continuity in local psychiatric care. At the time of this report, the Subcommittee has given preliminary consideration to a statement embodying the previously stated principles. It is anticipated the Subcommittee will meet again prior to the 1969 Annual Meeting to give further consideration and possibly to approve this statement. If so, it will be presented to the House of Delegates.

The Subcommittee has reviewed trends regarding insurance coverage for mental health and, with the Iowa Psychiatric Society, has gathered materials on the subject from the American Psychiatric Association and the American Medical Association. The Subcommittee feels that it should continue to study this subject. Currently, the progress in mental-health insurance coverage seems to have reached a plateau; advances have been made, and experience is now being accumulated.

The Subcommittee has followed the development of the new State Department of Social Services, as well as the continuing activities of the Mental Health Authority. During this past year Herbert Nelson, M.D., a member of the Subcommittee, has become director of the Iowa Mental Health Authority. The Subcommittee has been concerned over the changing administrative arrangements within the Department of Social Services. These seem to have hampered staff procurement for our state mental health institutes and the security hospital.

The Subcommittee has studied legislative proposals having to do with mental health. A bill to license clinical psychologists has been before the Subcommittee, and the members have been in general agreement that this is not a desirable measure; such action, as the Subcommittee understands it, would possibly lessen the quality of care available to Iowans. Other proposals have been reviewed and supported in principle. These include a better temporary commitment statute, and a realignment of funds spent by the counties to provide for those unable to pay for their own care. Also, the Subcommittee's attention has been directed to a permissive bill that would allow a community to establish a mental health program in whatever way seemed best suited to that community. It would allow for the use of many of the facilities and services available within or close to that community. The bill is unusual in that it apparently requires little or no expenditure by the state, over and above the moneys now expended. The Subcommittee has not taken a position on the bill, but it feels that its flexibility and the local responsibility it would permit are good elements. It seems likely that it would remove artificial financial incentives which tend to move patients toward certain facilities.

The Subcommittee has recently moved to re-establish lines of communication with the Iowa Chapter of the American Academy of General Practice. This move is for the purpose of helping set up a basic psychiatric education program for Iowa family physicians. It is anticipated that a committee from the AAGP will meet with the Subcommittee in the near future.

The Subcommittee has recommended the development within the Society of a new committee to concern itself with drug abuse and alcoholism. Ideally, such a committee would have some overlapping membership with the Subcommittee on Psychiatric Care.

W. A. BOCKOVEN, M.D., *Chairman*

SUBCOMMITTEE ON PUBLIC ASSISTANCE

The House of Delegates has assigned the Subcommittee on Public Assistance the important task of overseeing the operation of the Iowa Medical Assistance Program (Title XIX/Medicaid) for the Society. It has sought to carry out this assignment during the 19 months in which Title XIX has been operative in Iowa. This report will attempt to bring the House of Delegates up to date on developments which have occurred this past year.

The Iowa Title XIX program is a massive one. Between July 1, 1967, when the MAP began, and January 31, 1969, more than 1.2 million claims have been processed and nearly 35 million dollars paid out. For doctors of medicine, more than 445,000 claims have been handled and 6.5 million dollars paid. Among the other vendors, skilled nursing homes ($9,200,852), hospitals ($7,800,739) and pharmacies ($6,964,154) have received greater payments than physicians. Dentists have received $2,537,820.

Although it may be repetitious to do so, it is perhaps worthwhile for us to remind the delegates that the Title XIX philosophy—*providing care for those in need*—is one accepted by the Society. It may be well, additionally, to remember the four basic principles written into the Title XIX state enabling legislation at the urging of the Iowa Medical Society: freedom of choice for recipients of care; professional freedom for practitioners, use of a private fiscal intermediary, and payment of usual and customary fees.

The Subcommittee has met on two occasions this past year. In addition, the Society and the Subcommittee have been represented at several meetings of the statutory Title XIX Advisory Council. These called meetings have been supplemented by periodic informal discussions between the Committee members and representatives of the State Department of Social Services.

One of the principal charges to the Subcommittee by the 1968 House of Delegates was to establish lines of communication with the new Department of Social Services. This has been done this year, to the extent possible. In a major governmental re-organization step, the Department has assumed the responsibilities of the now defunct Boards of Social Welfare, Control and Parole. The Department is under the direction of

Commissioner Maurice Harmon, reportedly has about 6,000 employees, and has five operating bureaus: the Bureau of Income Maintenance Services, the Bureau of Adult Correction Services; the Bureau of Family and Children's Services; the Bureau of Mental Health Services; and the Bureau of Mental Retardation Services. It is the Bureau of Income Maintenance Services, headed by Mr. Arthur Downing, which is most directly concerned with Title XIX.

The Society's principal point of contact in the Department of Social Services this past year has been Dr. Otto N. Glesne. For health reasons, Dr. Glesne chose to retire in February, and his successor is a man who is familiar with the workings of state government, Dr. Elmer M. Smith. Dr. Smith on February 17 became director of medical services for the Department of Social Services. He served in a similar capacity to the State Board of Social Welfare before the re-organization. The Subcommittee enjoyed the opportunity to work with Dr. Glesne, and it looks forward to resuming its liaison relationship with Dr. Smith.

In its meeting with officials of the Department of Social Services January 23, the Subcommittee requested detailed information regarding the cutback in Title XIX. This cutback became effective February 1. The likelihood of this curtailment first became known on January 10 at an emergency meeting of the Title XIX Advisory Council. It was reported at both of these sessions (January 10 and 23) that remaining Title XIX funds were insufficient to cover the balance of the biennium at the current expenditure level of approximately three million dollars a month. It was reported that in order to maintain expenditures within available funds, total payments under the program had to be reduced to approximately two million dollars per month during the five-month period remaining in the biennium.

Several reasons were advanced for the shortage in Title XIX funds. During the biennium it became necessary for the Department of Social Services to transfer approximately five million dollars in state funds from Title XIX to various other programs, including Old Age Assistance and Aid to the Disabled. This transfer was made to finance nursing home care in those programs.

The second reported reason for the cutback is the generally increasing costs of health care and the unanticipated rate at which recipients have utilized the Title XIX program. The Department reported to the Subcommittee that the total Title XIX case load has not greatly exceeded original estimates, but expenditures on behalf of that case load have been greater than anticipated. The Department has advised that the average cost per claim for all services has been approximately $30 in contrast to the original estimate of $25.

In discussing the Title XIX curtailment, the Social Services representatives stressed these points, among others: (1) an attempt has been made to determine and implement those cutbacks which will effect the fewest number of people; (2) federal requirements declare that if a state is to receive matching funds, all services provided by a state prior to July 1, 1967 must be continued; (3) Title XIX expenditures calculated at about $2.25 million per month have been running at $3 million the past several months; (4) the Title XIX restrictions imposed February 1 limit hospitalization to 10 days and eliminate from participation most of those in the "medical only" classification; this latter group consists of those individuals related to one of the categorical groups (OAA, ADC, AD and AB) who do not receive cash grants, these being mostly those persons formerly covered under the MAA program; (5) the 10-day hospitalization limitation is in reasonable relation to the average length of stay in the hospital for people under 65; persons over 65 will have their Medicare hospitalization privileges to use ahead of Title XIX; and (6) the likelihood of counties assuming coverage of the suspended Medicaid services is possible but considered remote.

While the new Title XIX restrictions have been publicly described as temporary, Social Services officials imply that they may of necessity be continued in the next fiscal year. The appropriation recommended by the Governor for Title XIX is $12 million, and this is only a slight increase over the present allowance. It should be noted additionally that the federal matching percentage will change this year and will result in fewer federal dollars for the program. In one of its early askings, the Department of Social Services requested $18 million for Title XIX for each of the next two years. Resources at this level would likely have made it possible to add medically indigent children under 21 to the Title XIX Program next year. The inclusion of this category was advocated at this point in the original Medicaid timetable, but the forecast of a tight state budget will in all probability not permit the inclusion of this group. The Subcommittee was advised that the federal requirement that all medically indigent persons in Iowa be covered under Medicaid by 1975 will very likely be extended.

It should be reported to the House of Delegates that the Subcommittee expressed considerable concern and regret at its January 23 meeting over the newspaper comments attributed to Commissioner Harmon. Those remarks by Commissioner Harmon concerned the Title XIX cutback and cited as one of the principal reasons for the curtailment "less benevolence by physicians." Members of the Subcommittee made clear they felt the Commissioner's selection of words was not good, and resulted in physicians being identified as the group particularly responsible for the curtailment.

Matters pertaining to the prescribing of legend drugs under Medicaid were evaluated at the January 23 meeting. Representatives of the Department of Social Services expressed hope that the cost of the drugs could be kept as reasonable as possible without depriving the patient of adequate care. They advised that special audits are now being conducted by the Department in this area to determine if there are abuses of the program. The findings will be reported at the next meeting with the Subcommittee.

Those Social Security Amendments of 1967 which relate to Medicaid were reviewed with the Department of Social Services. These amendments reflect the concern of Congress over high costs and they encourage all of the people involved in Title XIX to seek ways of maintaining quality while curtailing costs. The limitation imposed on Title XIX income levels in the 1967 amendments are not a concern in Iowa at this time. The Social Services representatives advised that a problem may develop from the fact that Iowa Title XIX income limits are established by law, whereas other categorical programs (OAA particularly) to which Medicaid is compared are fixed by administra-

tive regulation and relate to cost of living. It is suggested by Social Services that consideration be given eventually to allowing for the setting of Title XIX income limitations by regulation.

The 1967 amendments provide that a state must establish a plan of utilization and cost review for each group of providers in the Title XIX program. Social Services has received no definitive federal regulations in this regard, other than for skilled nursing homes. Utilization review identical to that in effect for Extended Care Facilities under Medicare will become effective for Skilled Nursing Homes March 1, 1969. Federal regulations also provide that providers participating in both programs may apply existing Medicare utilization review mechanisms to the Title XIX program. This involves hospitals, physicians, etc. The Subcommittee has been advised that even though definitive federal guidelines have not become available, the Department of Social Services will be required to formulate some plans in this area in the near future.

One other 1967 amendment requires states by 1970 to establish a licensure program for nursing home administrators. Activity is now underway in the Iowa General Assembly to enact the legislation to meet this requirement.

The matter of organ transplantation and its relationship to Title XIX has been before the Subcommittee on several occasions. The Subcommittee recognizes the long range potential of this emerging field and understands, too, the complexity which accompanies it. The selection of transplant patients, the acquisition of organs and the extremely high cost of the procedures are but three of the elements which make this a complex field deserving of much thoughtful study. The Subcommittee is pleased to note the Society's appointment of a Committee on Organ Transplantation, and it is gratified to learn the Committee has already become active.

The 1968 House of Delegates requested the Subcommittee to review a proposal advanced by the Department of Social Services to permit physical therapists to receive direct payment for Title XIX services. This has been discussed with Social Services representatives and at this time there is no provision for such direct payments.

Some concern has been expressed by physicians over the reduction in fees paid under Title XIX. While these concerns are real and deserve to be aired, it should be remembered that the private intermediary in making these determinations is bound to observe and follow federal guidelines which have been established. It should be remembered additionally that the criteria used for determining usual, customary and reasonable are the same for both Medicaid and Medicare. Physicians are reminded of the importance of listing usual charges on all claims and not the amount which had previously been allowed for a particular procedure. A review procedure is available to physicians and to the Department of Social Services when extenuating circumstances suggest the desirability of further examination of the fee.

The Subcommittee has been distressed by AFL-CIO national proposals which suggest the need for a negotiated fee schedule for all physicians participating in federal programs and the establishment of a single system of financing physicians' services and hospitalization without requiring out-of-pocket payments from beneficiaries. It is understood that an office has been established in Washington, D. C., especially for the promulgation of these ideas at the national level.

In concluding this rather lengthy report, it would perhaps be appropriate to re-state again that the Title XIX philosophy is one which the medical profession has supported: that of providing good care to those who need it but do not have the resources to pay for it. It might also be advisable to take stock of and reaffirm the Society-supported principles included in the Title XIX enabling law, i.e., free choice of physician, use of a private intermediary and usual, customary and reasonable fees. The Subcommittee is planning to confer with the Department of Social Services shortly before the annual IMS meeting.

The chairman is again pleased to call attention to the conscientious performance of the members of the Subcommittee who serve on behalf of their medical colleagues throughout the state.

L. J. O'BRIEN, M.D., *Chairman*

SUBCOMMITTEE ON REHABILITATION

The final report entitled Comprehensive Statewide Planning for Vocational Rehabilitation Services was released late in 1968. It was prepared under the guidance of the State Department of Public Instruction, and was two years in the making. The federally-funded study focuses upon the present and future needs of the state's handicapped persons, and it proposes a plan to meet these needs by 1975.

Those directly involved in the conduct of that study took occasion, during its early stages, to confer with the Subcommittee on Rehabilitation on the appropriate steps to follow in gathering information from the medical profession. In addition, a member of the Subcommittee and two other physicians served on the Policy Board for the Statewide Study.

Several highlights from the findings of ths study will be of interest to the House of Delegates: (1) Currently in Iowa there are approximately 167,000 persons with physical or mental disabilities that constitute substantial handicaps to them in seeking and maintaining employment. These individuals could become fit for gainful occupation if they had appropriate rehabilitation services. About 25,000 new persons enter this group every year. (2) Throughout the state there is a lack of general understanding of the function of the Division of Vocational Rehabilitation, a lack of information about its present services and activities . . . and a lack of coordination among the various agencies and services. (3) A large number of employers in Iowa are unaware of the potentials of disabled persons after rehabilitation. (4) Rehabilitation work in Iowa should be expanded so that approximately 14,000 persons each year complete the vocational rehabilitation process, and move into employment and self-sufficiency. Annually, another 11,000 persons should complete substantial portions of rehabilitation-related treatment. (5) A division of Rehabilitation Education and Services should be organized within the Department of Public Instruction for efficient and considerate handling of a workload of 50,000 handicapped persons. (6) By 1975, funding of the aforementioned Division should be between $35 and $52 million a year.

Arrangements have been made for the members of the Subcommittee to receive the extensive three-volume study. It is understood a summary of the study is in preparation and will be widely circulated. At

some future date arrangements will be worked out for the Subcommittee to meet with state officials to discuss the content of the study.

Following the wishes of the House of Delegates, and responding to an inquiry from a member physician, the Society this year has maintained its line of communication with the Division of Vocational Rehabilitation and, more specifically, with Homer E. Wichern, M.D., its chief medical consultant, and with Mr. Price Farson, the director of its Disability Determination Unit.

In each of several contacts, stress has been placed, in this connection, on the Society's strong belief in the usual and customary-fee concept in all third party programs. As previously, the rehabilitation officials have expressed an understanding of usual-and-customary, and have indicated a desire to employ the concept. They have said they can exercise a degree of flexibility, even though they must have a set fee schedule to follow in reimbursing physicians. It is the intention of the Society, insofar as possible, to advise this government agency in developing appropriate and understandable language for use in communications with physicians.

The preceding information has been provided to the Society's Board of Trustees and to the IMS Executive Council. The Council endorsed the recommendation that liaison be maintained with the Division of Vocational Rehabilitation. As a further indication of cooperation between the IMS and the Division of Vocational Rehabilitation this past year, the Society used its NEWS BULLETIN to inform member physicians about the two new categories of persons who have become eligible for disability benefits under Social Security as a result of the 1967 amendments. Similar information was also included in an issue of the JOURNAL.

Finally, it is appropriate for the chairman to mention that a member of the Subcommittee, William D. deGravelles, M.D., was recently presented the Iowa Physician of the Year Award of the Governor's Committee on Employment of the Handicapped.

C. B. LARSON, M.D., *Chairman*

SUBCOMMITTEE ON SAFE TRANSPORTATION

In accordance with a recommendation of the Safe Transportation Subcommittee and subsequent action by the House of Delegates, a Medical Advisory Board was created by the Iowa Medical Society in 1966 to assist the Department of Public Safety in evaluating medical reports required on certain applicants for drivers' licenses. To date, the Advisory Board has evaluated 19 case files. The Department has indicated that the Board is serving a very valuable and useful function, and it is agreed that this cooperation should be maintained. The Subcommittee emphasizes that the granting of a driver's license remains the responsibility of the Public Safety Department.

In taking cognizance of a resolution approved by the 1968 House of Delegates—i.e., " . . . that a program of instruction for ambulance drivers be provided by members of the medical profession in each county . . . " the Subcommittee calls attention to the Society's co-sponsorship of a series of area conferences on "The Immediate Care of the Sick and Injured." The programs are arranged through the State Department of Health, and the other cooperating organizations include the University of Iowa College of Medicine, the Trauma Committee of the American College of Surgeons and the appropriate county medical societies. The courses are designed for ambulance drivers, policemen, firemen, etc. To date, programs have been held in Iowa City, Atlantic, Burlington, and Estherville, and others are to be conducted in additional areas of the state.

In this connection, the Subcommittee is hopeful that eventually a standard course of instruction on "emergency care of the sick and injured" will be incorporated into the curricula of all of the state's area vocational/technical schools. To this end, the Subcommittee got in touch with each of the schools to determine what interest there might be in such instruction, and a favorable response has been received. Follow-up communications will be sent to appropriate county medical society officials, urging them to cooperate with the interested schools in developing proper courses of instruction, etc.

The Subcommittee recently reviewed a "Statement of Basic Principles and Recommendations" relating to the organization and operation of ambulance services which had been developed by an *ad hoc* committee of the Iowa Hospital Association. Except for a few minor ones, no objections were raised regarding the statement as a basis for developing legislation on the subject of ambulance services, and the Society's Committee on Legislation has been apprised of the Subcommittee's conclusions in that regard.

In line with previous actions of the IMS, and in light of current legislative proposals, the Subcommittee on Safe Transportation has stated that although the Society could support amendments to existing state laws which would establish 0.10 per cent blood alcohol as an offense *per se*, consideration should continue to be given to the feasibility of establishing 0.10 per cent blood alcohol as evidence of intoxication.

As a public service, the IMS continues to secure films on automotive safety for use by schools throughout the state.

Your Subcommittee chairman represented the Society at an AMA Automotive Safety Symposium in Washington, D. C., last September. A report on the recommendations developed at that Symposium was distributed to members of the Subcommittee and to the officers of the Society.

One formal session was held during the past year with officials of the Department of Public Safety and the Iowa State Highway Patrol, and close liaison will continue with these agencies.

ARTHUR H. DOWNING, M.D., *Chairman*

Reports of Special Committees

COMMITTEE ON BLOOD BANKING

The Committee on Blood Banking has not met formally this year, but as individuals the members have maintained close liaison with the Iowa Association of Blood Banks (IABB) and the American Association of Blood Banks (AABB) on matters of possible concern to the Iowa Medical Society.

The chairman has had one request for information and assistance relative to development of a regional donor-procurement program. General information has been provided regarding types of blood assurance programs and the older donor-clubs' procurement methods. Knowledgeable blood bankers have been informed of the area's needs through the IABB.

There is a continuing urgent need for assistance from all physicians with the problems of blood re-

placement. We find that physicians tend to become complacent about blood supplies in areas served by community blood banks. The facts are that donors who come to replace blood are a major source of members for blood-assurance programs. A few emphatic words from the attending physician to relatives and friends will often "get the ball rolling."

Your Committee continues to feel that the Iowa Medical Society should push for legislation to eliminate the threat of implied warranty for blood, blood components and other human tissues. The IABB has strongly reaffirmed its position in this matter.

Iowa is one of 44 states that now have some type of legislation governing transfer of blood or organs from one person to another, but Iowa does not have specific legislation indicating that the transfer of blood is a service, and not the sale of a product.

The Florida courts in 1967 imposed warranty liability on blood banks through "judicial legislation," in spite of the fact that there is no reliable means of detecting the hepatitis virus in blood. In June, 1968, the National Research Council (NRC) and the Division of Biologic Standards of the National Institute of Health arbitrarily condemned pooled human plasma before most of the experts who produce and transfuse the product had seen the evidence. Licenses to sell or ship this human plasma in interstate commerce were withdrawn. The justification for that action is still open to question. For obvious reasons this action is not applicable to whole blood, which poses less of a hepatitis threat, but the plasma "incident" focused attention of hospitals, blood banks and certain members of the legal profession on the implied-warranty liability threat.

Many of the legal considerations applicable to tissue for transplantation are also applicable to blood for transfusion. The AMA and the AABB have reiterated their stand that state medical societies should promote this legislation. It is in your interest that state statutes be adopted making clear that the provision of blood and human tissues for transplantation constitutes a service and not a sale, whether or not payment is made for it.

Until legislation to avoid implied-warranty liability has been obtained in Iowa, your Committee recommends the use of a special consent form. The form approved by AABB legal counsel is as follows:

CONSENT TO BLOOD TRANSFUSION

Date

I hereby consent to and authorize the transfusion or administration of blood or blood components to (state name of patient or "me") during (my) (said patient's) hospitalization at (Hospital), whenever deemed necessary by those physicians attending to (my) (said patient's) care.

I understand that there is the risk that such transfusion may cause viral hepatitis or other reaction, and I agree that no express or implied warranty is made by the hospital, any blood bank or any person or entity whatsoever as to blood or blood components so administered, or upon the transfusion thereof.

Signed.....

.....

Witness

Your Committee is anxious to receive information about all problems relative to blood-banking and transfusion in Iowa. Its members are in a position to help provide answers, and will be pleased to do so. The Committee especially urges that all physicians using blood take advantage of the excellent educational programs now becoming available on the use of blood components.

W. S. PHETEPLACE, M.D., *Chairman*

COMMITTEE ON ECONOMICS OF HEALTH CARE

The Committee on Economics of Health Care has met once this year. That meeting was principally for the purpose of briefing its members on a project under study by a group of Des Moines physicians. The Committee was told that the Des Moines project evolved from the interest and collaboration of six physicians, and if it reaches fruition it may eventually include as many as 100 or more doctors.

As explained to the Committee, its ultimate objective is the construction of a high-rise medical building on at least part of the land now known as Woodland Park, an area in close proximity to Iowa Methodist Hospital. Feasibility studies for the building have commenced, and reportedly are based on the premise that the practice of medicine is approaching or is in a period of change. It is the intention of the Des Moines doctors who conceived the structure to employ a flexible design, so that the building will be adaptable to any change which may occur during the next 30 to 40 years.

The Committee was informed that a non-profit planning or research foundation will be activated to assess the Des Moines picture carefully prior to any construction. That foundation will request federal funds to assist it in the conduct of its investigation. The study is to have two basic objectives: (1) To determine what methods are currently available and practical for increasing the efficiency of medical care in Des Moines, and (2) To outline the steps required to put these methods into effect. More specifically, the foundation would (1) Investigate computer methods now in use in connection with history taking, information retrieval, data analysis and transmission, and business procedures; (2) Evaluate multiphasic screening to determine its potential in private practice, with low income groups, in central and scattered settings, etc.; (3) Study the use of paramedical personnel; (4) Analyze methods private physicians use in providing comprehensive medical care, and relate these methods to medical office building construction; and (5) Assess the impact of the proposed program on Des Moines hospital facilities.

The Committee was informed that the physicians involved in the project believe the doctor-participants in any such undertaking should retain absolute identity as individual practitioners. The physicians involved reportedly support the long-standing fee-for-service concept, and do not contemplate a prepaid capitation system or a salaried-physician arrangement.

It was explained to the Committee that the project had been reviewed with the Polk County Medical Society and with the Health Planning Council of Central Iowa, and according to the explanation provided, those groups neither endorsed nor rejected the project.

The Committee felt similarly that it lacked the prerogative to recommend approval of or opposition to the project.

The amazing potential of the computer in health care was assessed as part of the briefing on the Des Moines project. The Committee was informed that a computer has become available which possesses the

capacity of performing billing functions and other administrative functions for all Iowa physicians. Reportedly it is capable of eliminating much costly and time-consuming paper work for the physician.

During 1968 the chairman of the Committee represented the Society at an HEW regional meeting on the costs of medical care in Kansas City, Missouri. The subjects covered included health-care cost patterns, insurance, group practice, etc. The participants included representatives from industry, labor, hospital administration, planning organizations, nursing homes, medicine, etc. The brain-storming session produced considerable independent thinking, but produced very little consensus as to the best ways of holding the cost line. HEW, according to the comments of its officials at that meeting, wishes to have the expertise of local, state and regional providers of health care brought to bear on existing and developing problems.

As is the case with most physicians, the Committee is conscious of the myriad statements, studies and reports issued on the economics of health care. With varying emphases, these materials cite rising costs, changing delivery patterns, manpower shortages, etc. The quantity serves to bewilder. It requires a judicious sifting out of what seems to be most relevant. In the final analysis, however, the best approach is one wherein the doctor and the patient are determined to, and do, maintain a personal relationship in which mutual trust is the overriding principle.

The Committee will continue to address itself as possible to the broad subject area assigned it.

C. O. ADAMS, M.D., *Chairman*

HISTORICAL COMMITTEE

Late in 1968, Stewart E. Reed, a Des Moines podiatrist, whose hobby is book collecting, called the attention of the IMS to an item in a Baltimore bookseller's catalog offering a 16 pp. printed edition of THE CONSTITUTION, BY-LAWS AND PROCEEDINGS OF THE IOWA STATE MEDICAL AND CHIRURGICAL SOCIETY, printed at Burlington, by Morgan & M'Kenny, in 1850. As nearly as can be determined it was the first such thing to be printed in Iowa. The text corresponds exactly with the one that W. L. Bierring, M.D., included in his HUNDRED YEARS OF IOWA MEDICINE, in 1950, and though it differs slightly from the version which had been reproduced by D. S. Fairchild, M.D., in his MEDICINE IN IOWA: FROM ITS EARLY SETTLEMENT TO 1876, published in 1918, it is thought that the Morgan & M'Kenny account is the correct one.

The IMS Board of Trustees has purchased it and plans to lend it to the State Medical Library for temporary exhibition there. Later, it is probable that it will be returned to the Society's headquarters building, in West Des Moines.

During the past year the JOURNAL OF THE IOWA MEDICAL SOCIETY published an exchange of letters having some historical interest, between the late Daniel F. Crowley, Sr., M.D., and the Mayo brothers. Two other historical manuscripts are awaiting publication, and the JOURNAL will welcome others. The most interesting materials of this sort are ones which consist of anecdotes illustrating the difference between medicine and surgery as it used to be practiced and as it is practiced today.

OTTO N. GLESNE, M.D., *Chairman*

COMMITTEE ON ONCOLOGY

On recommendation of the Committee on Exfoliative Cytology (now the Committee on Oncology), prior to the 1968 Annual Meeting, the Executive Council of the Iowa Medical Society approved in principle a proposed three-year (1969-1971) Comprehensive Cancer Morbidity Study to be carried out in Iowa by the National Cancer Institute, through the Iowa Central Tumor Registry. The approval was subject to certain provisions which were set forth by the Committee and the Council, and which had been developed as a result of expressed concern about the inclusion of a socio-economic survey in the proposed study.

The report of the Exfoliative Cytology Committee concerning this matter was presented to the 1968 House of Delegates, and the study was not approved; hence, the prior endorsement by the Executive Council was nullified.

At the Executive Council's meeting on July 25, 1968, however, the director of the Iowa Central Tumor Registry provided supplemental material regarding the proposed Comprehensive Cancer Morbidity Study, and emphasized the importance of his agency's obtaining current epidemiologic data to compare with that which had been collected in Iowa in 1951. The Council was also informed that the social and economic portions of the study which had caused some concern to IMS officials would be eliminated in Iowa.

In light of this information, and after due deliberation and consideration, the Executive Council granted IMS endorsement to the proposed Comprehensive Cancer Morbidity Study, as modified.

On recommendation of the Oncology Committee, the Executive Council approved a proposed Pap Smear Demonstration Project for Clay County (Iowa), to be conducted by the Iowa Division of the American Cancer Society, in cooperation with the Clay County Medical Society and the Clay County Chapter of the Iowa Division of the American Cancer Society.

G. R. CLARK, M.D., *Chairman*

COMMITTEE ON EYE CARE

The IMS Committee on Eye Care now includes some otolaryngologists in its membership, in anticipation of undertaking some functions involving preservation of hearing as well as of vision. One of them, Byron M. Merkel, M.D., is member of the State Health Department's Hearing Conservation Committee, and attended a meeting of that group in Iowa City on December 6. At that time, the members considered the possibility of mass screening for the detection of auditory problems in pre-school children but couldn't agree upon a method for doing it. The group is to have a second meeting in Council Bluffs on March 7, and if significant actions are taken at that time, and subsequently are approved by the IMS Committee, a supplemental report will be prepared for the House of Delegates.

Following the instructions of the IMS House of Delegates, the Committee on Eye Care has met with representatives of the opticians regarding a bill for presentation to the General Assembly of Iowa that will assure them of being able to continue all phases of their work under medical supervision, and particularly to continue the shaping and fitting of contact lenses, a right to which an opinion from onetime Attorney General Lawrence Scalise said they were not entitled.

The House of Delegates indicated that the Committee on Eye Care, if possible, should see to it that the opticians' bill called for registration rather than licensure, and it does that. Furthermore the bill, if enacted, will put the examining and registering of

opticians under the control of the State Board of Medical Examiners.

The Committee met with representatives of the optometrists on February 20, principally to exchange ideas about legislation. The optometrists and their lobbyists answered the Committee members' questions about an optometric-service prepayment plan for which they are seeking enabling legislation, and were told of our reasons for helping the opticians seek passage of their proposed registration law.

At the suggestion of the Committee on Eye Care, the IMS Executive Council has approved a project suggested by the State Department of Health, under which ophthalmologists will describe and demonstrate tonometry at meetings of county medical societies, so that general practitioners and specialists of sorts other than ophthalmology can have the requisite technic for detecting glaucoma. The first such program is planned for Iowa Falls on March 11. By the time this report is printed, all county medical society presidents will have received a letter from Elizabeth Procter, M.D., of the State Department of Health, asking that they arrange for the presentation of this program at one of their meetings.

ARTHUR H. DOWNING, M.D., *Chairman*

COMMITTEE ON GROUP INSURANCE

The House of Delegates is reminded that a modification was made last year in the Blue Cross-Blue Shield Statewide Physicians' Group Program. That modification improves the coverage provided doctor participants in the program. The change affects the Blue Cross 365-Day Comprehensive Program and authorizes payment of the full semi-private charge in participating hospitals, whereas previously the program provided a room allowance of up to $25 per day. As now established, the participant wishing a private room is entitled to an allowance in an amount equivalent to the most frequent charge for a semi-private room in the particular hospital.

This new feature of the Statewide Physicians' Group Program became effective July 1, 1968, and participants were so informed by letter. The modification necessitated a restoration of premium rates to the 1967 level. There was a small premium reduction made in January 1969.

A recent open-enrollment period (in January, 1969) recruited 25 additional members for the program and helped to continue overall program participation at a level in excess of 650. The experience record for the 12-month period ended on July 1, 1968, showed 365 Blue Cross and 743 Blue Shield claims. The amount of the claims was $94,029 for Blue Cross and $42,680 for Blue Shield. The number of days of hospitalization under Blue Cross was 2,857.

Because of the program's substantial utilization of both Blue Cross and Blue Shield during this past year, rates for 1969 have had to be increased slightly. For the six different options, the two-person or family premium rate ranges from $9.90 to $19.05 per month. These rates became effective January 1, 1969.

It should be pointed out that an open enrollment period is held each year. New enrollments, transfers to the group, or changes of contract can be made at that time. This IMS program deserves the consideration of all Iowa physicians.

The Prouty Company of Des Moines continues to serve as administrator of the Group Accident and Sickness Disability Income and Life Insurance Programs sponsored by the Iowa Medical Society.

The Life Insurance Program provides valuable protection and assistance to all insured members. Some of the conversion privileges in this program are taken advantage of by some participants each year. For the third year now, term life insurance has been available in amounts up to $50,000. Prior to 1967, only $20,000 was available to IMS members through this particular program. It is underwritten by The Bankers Life, Des Moines.

For the second year the Prouty Company is making available a term life-insurance protection program for members of the Woman's Auxiliary to the Iowa Medical Society. This insurance is provided in units of $5,000, and also is available from The Bankers Life.

In connection with the Group Disability Income Program, the Society has been advised by The Prouty Company that, for the sixth consecutive year, 110 per cent of the guaranteed benefit has been paid during an insured's disability. This extra amount has been provided by the Commercial Insurance Company to participating members at the regular premium cost.

The Prouty Company has learned that 1968 was a favorable year in terms of adding and retaining members in the programs. Society members are encouraged to become acquainted with these programs which are available through the Society. Information can be obtained from The Prouty Company, 2124 Grand Avenue, Des Moines, Iowa 50312.

In 1968 the Society received overtures from several companies offering Keogh-approved retirement plans. Each of the plans brought to the Society's attention seems to have both attractive features and drawbacks. As of this date, these several plans have been given only a cursory review by the Society. It is probable that the Committee on Group Insurance will delve into them in greater detail in the coming year.

Note has been taken of the Board of Trustees' current interest in legalizing the "professional corporation" in Iowa. Such a development would presumably bring to presently self-employed doctors the tax benefits which now are available to corporations, and such a development would tend to lessen the attractiveness of Keogh plans for physicians.

R. S. GERARD, II, M.D., *Chairman*

COMMITTEE ON INDEPENDENT LABORATORIES

The Committee on Independent Laboratories has not found it necessary to hold a meeting this year. The House of Delegates may recall that this Committee was particularly active a year ago in attempting to obtain for the medical profession and the citizens of Iowa the best possible proficiency-testing mechanism for the independent laboratories certified to provide services under Medicare.

The Committee consulted several times in 1967 and 1968 with representatives of the State Department of Health and the State Hygienic Laboratory. Those deliberations helped to bring about a satisfactory resolution of the matters causing concern. Out of the deliberations came a request from the State Hygienic Laboratory that its Proficiency Testing Program not be applicable to independent laboratories participating in Medicare. Subsequent to the acceptance of this request, the Department of Health "approved" the proficiency-testing programs of the College of American Pathologists and the American Association of Bioanalysts. Most, if not all, of the independent laboratories in Iowa participate in the well-established and highly-regarded CAP program.

So far as is known, the arrangement resulting from the deliberations summarized in the preceding paragraph is working to the satisfaction of all concerned. The Committee is not aware of any action taken with respect to its recommendation to the Department of Health that a state laboratory advisory committee be appointed. It was felt such a group would be helpful to the Department of Health in its consideration of the complex matters relating to laboratory evaluation.

A question about the new language appearing on the state premarital certificate forms has been raised this past year by representatives of the Committee. The insertion of the phrase "thorough physical examination" prompted that concern. A review of the state statutes pertaining to this subject showed that the form contained language taken verbatim from the law.

It might be well to note that in December the AMA endorsed a revision in the "Essentials for Approved Schools of Medical Technology" drawn by its Council on Medical Education. These AMA Essentials require that new schools participate with programs leading to a baccalaureate degree, and suggest they should have at least 10 students enrolled in each clinical year. This action appears to be in keeping with the wish of the 1968 IMS House of Delegates, namely that effort be exerted to preserve the smaller existing and approved schools of medical technology.

It should be mentioned that three pathologist members of the Committee form a Subcommittee to maintain liaison with the Iowa Society of Medical Technologists. This Subcommittee has been serving to this end.

J. H. SUNDERBRUCH, M.D., *Chairman*

PUBLICATIONS COMMITTEE

THE JOURNAL OF THE IOWA MEDICAL SOCIETY continues to have financial troubles, now chiefly because printing costs—and most importantly the labor components in them—have risen, along with the prices of all other services. IMS members can be sure that every effort is being made to hold the increased expenses to a minimum. An even greater concern of the editors, however, has been occasioned by what, until very recently, was a dwindling supply of scientific articles suitable for publication.

Richard M. Caplan, M.D., an associate professor of dermatology in Iowa City and the JOURNAL's recently appointed liaison with the faculty of the U. of I. College of Medicine, has demonstrated very dramatically that such materials are available, both from visiting lecturers and from faculty members there, provided only that the right man sets out to get them. In addition, William R. Wilson, M.D., head of the group at the U. of I. College of Medicine that publishes the intramural UNIVERSITY HOSPITALS DRUG LETTER, is arranging to provide significant articles from it for republication in the IMS JOURNAL, and the Iowa Heart Association is furnishing articles by nationally prominent physicians and investigators in its field, on a monthly basis. We are deeply appreciative of this help in our work of providing valuable medical literature to the profession in Iowa.

But private practitioners throughout the state, we hope, will undertake to "hold up their end," lest the JOURNAL become merely a service to, rather than an instrumentality of all IMS members. Private practitioners, we know, are busier than ever before, but for that very reason, and because they doubtless have more diagnostic and therapeutic successes than ever that deserve reporting, we ask them to write up some of their individual cases or to review their not inconsiderable experience with unique or modified treatment regimens. After all, the busiest men usually are the ablest, and are the ones who can do most to advance their profession.

And as we have done before, we urge county and area program chairmen to secure manuscripts whenever possible from the speakers at their meetings, or to have their presentations tape-recorded. By having them published in the JOURNAL they can confer a measure of permanence upon their work as program chairmen, can build the reputations of their societies as scientific organizations, and can facilitate the clinical application of their speakers' ideas both by doctors who were unable to attend the meetings, and also by the men who were present but don't want to rely merely on their memories of what the speakers said.

The JOURNAL staff undertakes to transcribe tapes for review by the speakers prior to publication, and will be glad to reproduce reasonable numbers of tabulations, charts, x-rays, photographs of pathologic specimens, etc., with the papers.

As the majority of medical journals throughout the country publish fewer and fewer scientific articles in their successive issues, we take pride in the fact that the JOURNAL OF THE IOWA MEDICAL SOCIETY is emerging as one of no more than a half-dozen leaders in its group. We should like your help in enabling it to retain that position.

DENNIS H. KELLY, M.D., *Editor*

COMMITTEE ON INDUSTRIAL HEALTH

The Committee on Industrial Health has not met formally this year, but its members continue active in pursuits associated with this growing medical-specialty area. The Committee is pleased to learn that the IMS Task Force on Medical Manpower has included a reference to industrial medicine in a report which it has prepared for varied use by the Society. This Task Force Report declares that the need for additional emphasis on industrial medicine should be evaluated carefully as the state becomes increasingly industrialized. It suggests further that the industrial setting may be one in which preventive medicine can be offered more extensively.

The member of the Committee most active in industrial medicine at the governmental level is D. W. Coughlan, M.D., of Des Moines, who continues to serve as medical counsel to the State Industrial Commissioner and to the Workmen's Compensation Program.

The chairman of the Committee has had an opportunity this past year to participate in two out-of-state meetings. First, he represented the Society at the national meeting of state chairmen of industrial health commitees, held in New York City, in conjunction with the AMA's 28th Annual Congress on Occupational Health. In circulating a report on this meeting to the Committee, he placed emphasis on proposed federal legislation calling for (1) mandatory occupational safety and health standards to be set and enforced by the Secretary of Labor; (2) research relating to occupational safety and health, to be performed mostly by HEW; (3) training programs to develop needed



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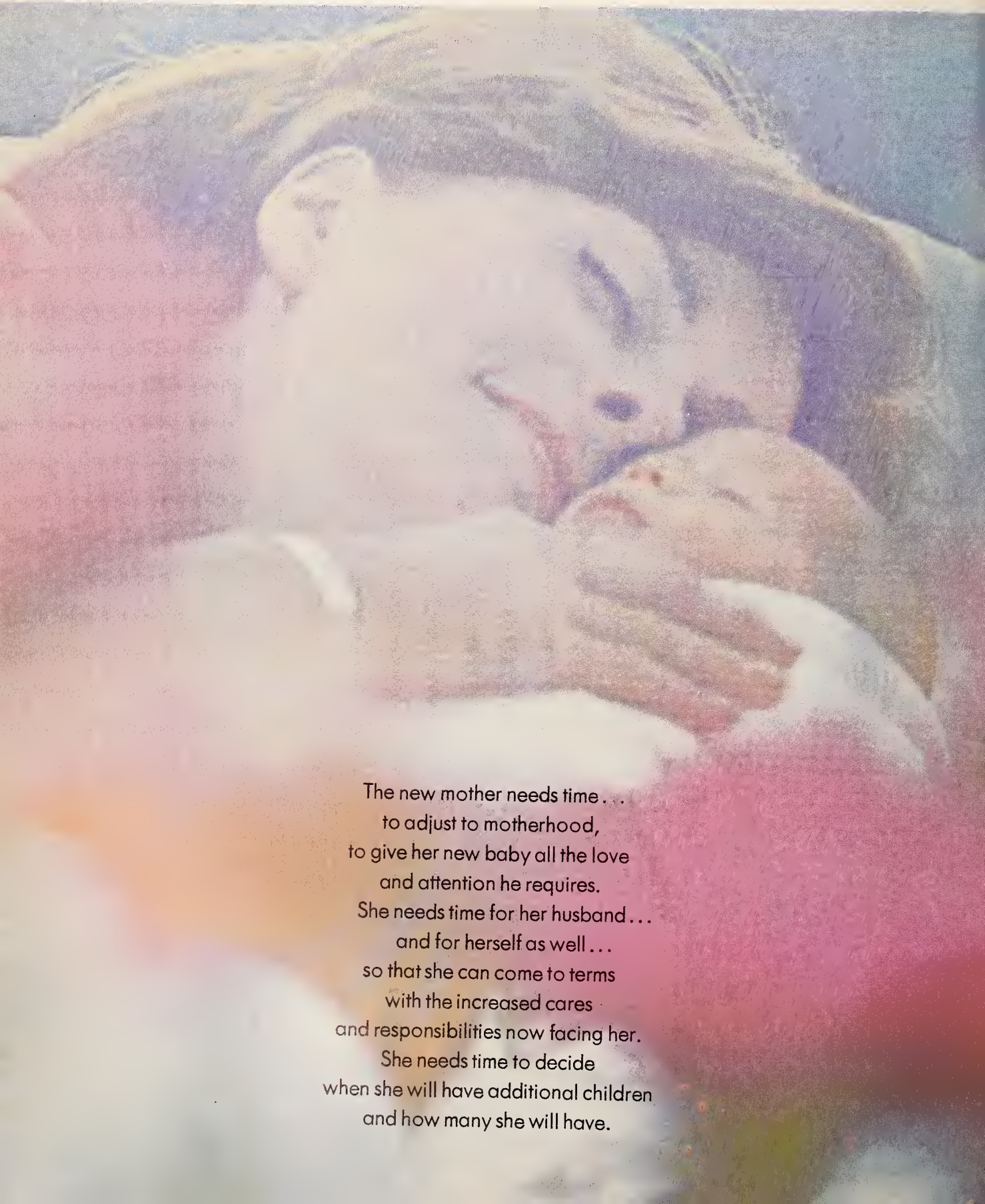
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Non-nursing mothers may begin Ovulen-21 immediately after delivery, on the day of departure from the hospital or at the first postpartum visit, as desired. It is recommended that nursing mothers begin Ovulen-21 four weeks after delivery.

A small fraction of the hormonal agents in oral contraceptive pills has been identified in the milk of mothers receiving these drugs. The long-range effect on the nursing infant cannot be determined at this time.

Indication—Oral contraception.

Contraindications—Thrombophlebitis, thromboembolic disorders, cerebral apoplexy or a post history of these conditions, markedly impaired liver function, known or suspected carcinoma of the breast, known or suspected estrogen-dependent neoplasia, undiagnosed abnormal genital bleeding.

Warnings—Watch for the earliest manifestations of thrombotic disorders (thrombaphlebitis, cerebrovascular disorders, pulmonary embolism, retinal thrombosis); if present or suspected discontinue the drug immediately.

British studies reported in April 1968[1,2] estimate there is a seven- to tenfold increase in mortality and morbidity due to thromboembolic diseases in women taking oral contraceptives. In these controlled retrospective studies, involving 36 reported deaths and 58 hospitalizations due to "idiopathic" thromboembolism, statistical evaluation indicated that the differences observed between users and non-users were highly significant. The conclusions reached in the studies are summarized in the table below:

Comparison of Mortality and Hospitalization Rates Due to Thromboembolic Disease in Users and Non-Users of Oral Contraceptives in Britain.

Category	*Mortality Rates*		*Hospitalization Rates (Morbidity)*
	Age 20-34	*Age 35-44*	*Age 20-44*
Users of Oral Contraceptives	1.5/100,000	3.9/100,000	47/100,000
Non-Users	0.2/100,000	0.5/100,000	5/100,000

No comparable studies are yet available in the United States. The British data, especially as they indicate the magnitude of the increased risk to the individual patient, cannot be applied directly to women in other countries in which the incidences of spontaneously occurring thromboembolic disease may differ.

Discontinue medication pending examination if there is sudden partial or complete loss of vision, or sudden onset of proptosis, diplopia or migraine. Withdraw medication if papilledema or retinal vascular lesions are found.

Since the safety of Ovulen in pregnancy has not been demonstrated, it is recommended that pregnancy be ruled out for any patient who has missed two consecutive periods before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule the possibility of pregnancy should be considered at the first missed period.

A small fraction of the hormone agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. The long-range effect on the nursing infant cannot be determined at this time.

Precautions—Pretreatment physical examination should include special reference to the breasts and pelvic organs, and a Papanicolaou smear.

Endocrine and possibly liver function tests may be affected by Ovulen. Therefore, it is recommended that such tests if abnormal be repeated after the drug has been withdrawn for two months.

Pre-existing uterine fibromyomas may increase in size under the influence of progestogen-estrogen preparations.

Because these agents may cause some degree of fluid retention, conditions which might be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation.

In breakthrough bleeding, and all irregular vaginal bleeding, consider nonfunctional causes. Adequate diagnostic measures are indicated in undiagnosed vaginal bleeding.

Carefully observe patients with a history of psychic depression and discontinue the drug if severe depression recurs.

Any possible influence of prolonged Ovulen therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study.

A decrease in glucose tolerance has occurred in a significant percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be observed carefully while receiving Ovulen.

Because of the effects of estrogens on epiphyseal closure Ovulen should be used judiciously in young patients in whom bone growth is not complete.

The age of the patient constitutes no absolute limiting factor, although Ovulen therapy may mask the onset of the climacteric.

The pathologist should be informed of Ovulen therapy when relevant specimens are submitted.

Adverse Reactions—A statistically significant association has been shown between use of oral contraceptives and the following serious adverse reactions: thrombophlebitis, pulmonary embolism.

Although available evidence is suggestive of an association, such a relationship has been neither confirmed nor refuted for the following serious adverse reactions: cerebrovascular accidents, neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis.

The following adverse reactions are known to occur in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea during and after treatment, edema, chloasma or melasma, breast changes (tenderness, enlargement, secretion), change in weight, changes in cervical erosion and cervical secretions, suppression of lactation when given immediately post partum, cholestatic jaundice, migraine, allergic rash, rise in blood pressure in susceptible individuals, mental depression.

Although the following adverse reactions have been reported in users of oral contraceptives, an association has been neither confirmed nor refuted: anovulation post treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme and nodosum, hemorrhagic eruption, itching. The following laboratory results may be altered by oral contraceptives: hepatic function: increased sulfobromophthalein and other tests; coagulation tests: increase in prothrombin, Factors VII, VIII, IX and X; thyroid function: increase in PBI and butanol extractable protein bound iodine, and decrease in T^3 uptake values; metyrapone test; pregnanediol determination.



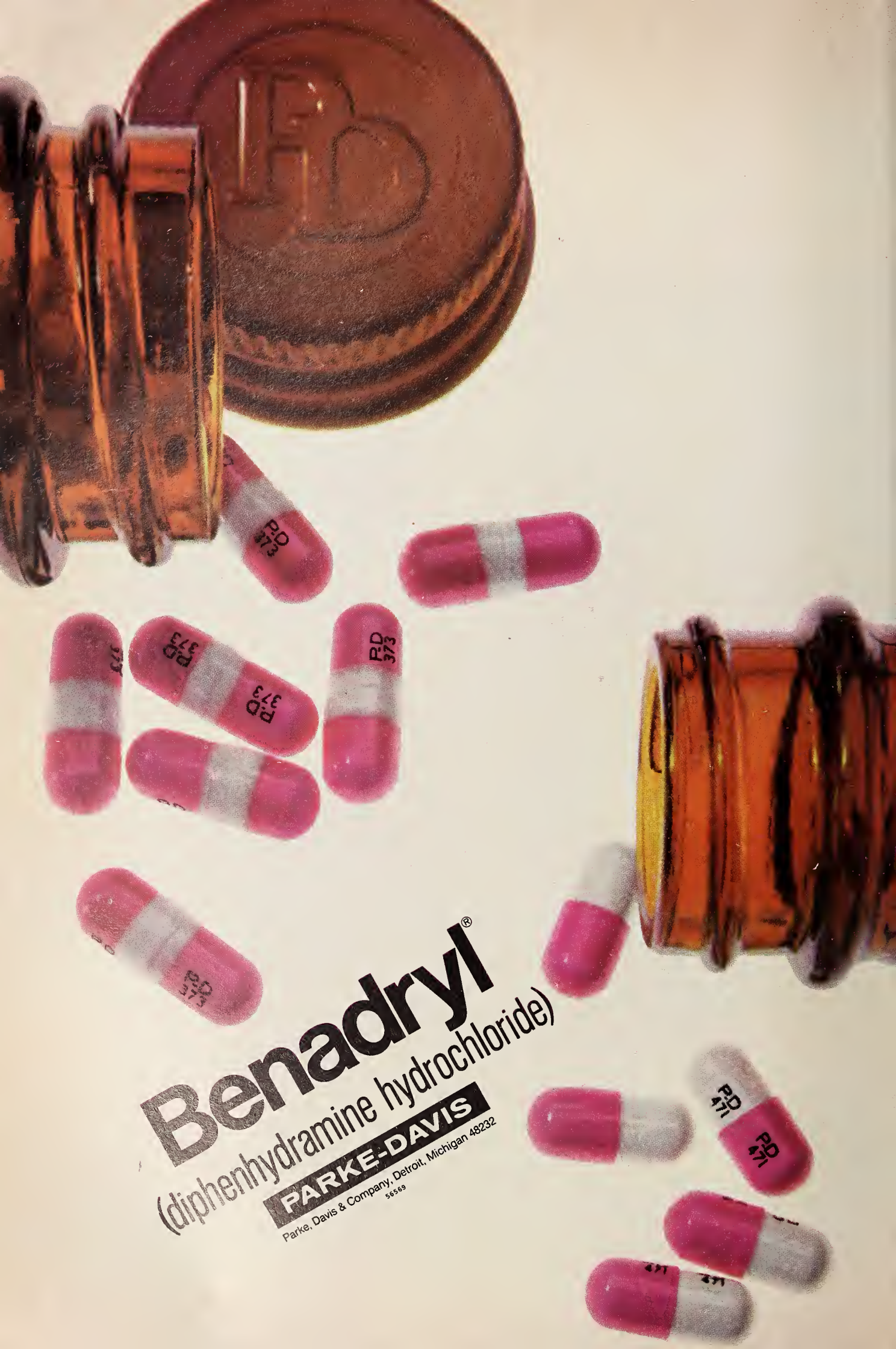
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health-care manpower by both the HEW and Labor Departments; (4) enlarging the safety and health provisions for federal contractors under the Secretary of Labor; (5) providing matching grants to the states to assist them in developing appropriate information, plans and demonstration projects; and (6) providing better reporting procedures on occupational hazards, also under the Secretary of Labor. The AMA firmly opposed standard-setting and enforcement by federal agencies. The proposed legislation was altered in several ways, and eventually failed of passage by the 90th Congress.

In a second meeting, held in St. Louis, the chairman was invited to share in planning the 1969 Congress on Occupational Health, which is to be held there on September 15 and 16. Among the subjects scheduled for coverage at this Congress are aerospace medicine, workmen's compensation and occupational hazards in agriculture.

In the coming year the Committee on Industrial Health intends to continue planning to develop a roster of Iowa physicians who are devoting considerable portions of their time to the practice of industrial medicine. This project has been under consideration by the Committee, in the belief that because Iowa is steadily increasing its industrial productivity, the existence of such a reference document would be valuable.

As previously indicated, the Committee intends to ask county medical society presidents for the names of physicians who are involved in industrial medicine. The inquiry to county presidents will include two basic questions: "Who are the physicians in your county engaged in the *full-time* practice of industrial medicine?" and "Who are the physicians in your county engaged in a *part-time* practice of industrial medicine?"

It may be desirable to point out that several bills which relate to the Workmen's Compensation Program are before the Iowa General Assembly at this time. They are being supported by the Industrial Commissioner's office. Perhaps the most significant of these is one which would entrust to the Industrial Commissioner, to a greater degree than at present, responsibility for supervising professional care in Workmen's Compensation cases. In concluding this report I should emphasize that the Committee has enjoyed a good working relationship through the years with Mr. Harry W. Dahl, Jr., the state industrial commissioner.

C. H. JOHNSTON, M.D., *Chairman*

IOWA BAR LIAISON COMMITTEE

There has been communication between the Society and the Iowa Bar Association this past year on various subjects, but an opportunity to join with the legal profession in assessing the merits of a malpractice screening program still remains to be found. Widespread reports of mounting malpractice rates and, in some instances, a scarcity of companies providing coverage combine to underscore the need (1) for exploring this area and (2) for developing new approaches to the discouraging of baseless malpractice cases.

It is hoped that an opportunity will be found within the near future to meet with appropriate representatives of the Bar Association to review this subject.

R. P. LAGONI, M.D., *Chairman*

COMMITTEE ON IOWA REGIONAL MEDICAL PROGRAM AND COMPREHENSIVE HEALTH PLANNING

Although it has not been necessary to schedule an official meeting of the Committee on Iowa Regional Medical Program and Comprehensive Health Planning during the past year, its members have been kept apprised of RMP and CHP programs, as well as of the activities of the voluntary Health Planning Council of Iowa. Two members of the Committee represent the IMS on the Iowa Regional Advisory Group (S. P. Leinbach, M.D., delegate, and F. G. Ober, M.D., alternate); another committee member (H. L. Skinner, M.D.) serves as president of HPCI, and also as a member of the Advisory Council to the State Office for Comprehensive Health Planning.

State Comprehensive Health Planning Program: Consistent with recommendations of the Executive Council for clarification of the respective responsibilities and the relationships between the State Board of Health, the Commissioner of Public Health, and the Office for Comprehensive Health Planning, which was developed within the Health Department, an opinion was prepared by the Society's legal counsel. In essence, legal counsel points out that the State Board of Health should rightfully be involved in and be concerned with programs of OCHP, and in a subsequent conference the State Commissioner of Public Health expressed no objections to that position.

The Advisory Council to OCHP has been expanded from 31 to 33 members, including a majority of "consumers." Mr. Kenneth Barrows, a vice-president of The Bankers Life and a member of the HPCI Board of Directors, was elected chairman of the Advisory Council, and Mr. Ben K. Yarrington, formerly the executive director of the United Cerebral Palsy Association of Iowa, recently was appointed the full-time director of OCHP.

On invitation, the IMS has named several physicians as candidates for appointment to standing committees of the Advisory Council. It is anticipated that this will be one method by which the medical profession can exert leadership in the development of projects and activities important to comprehensive health planning.

The Executive Council has recommended that an IMS staff member attend all open meetings of the CHP Advisory Council, and that the Society cooperate to the fullest extent possible with the Advisory Council in its comprehensive health planning efforts.

Iowa Regional Medical Program: The Iowa Regional Medical Program was recently awarded a supplemental grant of $110,000 to carry out specific projects, and the Iowa Regional Advisory Group will make determinations with respect to specific allocations.

One of the proposed projects involves the creation of an Iowa Health Information System (data bank), and the appointment of an Iowa Health Information Committee, to consist of purveyors of health care. In this connection the IMS has appointed a special committee to serve in an advisory capacity to IRMP for the purpose of assisting in the interpretation and evaluation of material to be collected for the proposed data bank.

At its meeting in July, the Executive Council gave its endorsement, in principle, to the Iowa Health Information System. The Committee wishes to emphasize

that the purpose of the System will be to collect disease-category information, and to serve as a clearing house and collecting agent for health data. The members of the IMS will be kept apprised of further progress in the development of the Health Information System, and of other pertinent projects.

In an effort to establish better geographical representation on the Iowa Regional Advisory Group, and to provide a broader representation from the IMS, the Executive Council approved a recommendation of the IRAG Executive Committee that a primary and an alternate physician member from each of the eleven IMS Councilor Districts be appointed to serve on the Advisory Group, with the councilor in each district named as the primary member. Final action on this proposal is to be taken by IRAG at a future meeting.

Health Planning Council of Iowa: In July, HPCI obtained the services of Mr. Richard Rix as its executive director. Mr. Rix was formerly associated with the Regional Health and Hospital Planning Council in Rochester, New York. HPCI utilized the IMS building as temporary headquarters until September, at which time it established a permanent office at 73rd and Hickman Road, in Des Moines.

The general functions of HPCI are to promote the reasons and need for the development of comprehensive health planning programs on a local and areawide basis in Iowa; to assist communities in organizing and establishing health planning programs; to serve as a partner and participant in developing the Iowa Comprehensive Health Plan; to serve as a central and inter-regional focal point for statewide coordination of areawide health planning councils and to provide staff assistance and consultation to communities and areas wishing to assess their particular health needs and develop programs to meet those needs.

Currently, HPCI is working and consulting with 14 voluntary regional councils in the state which are either in the process of being organized, or are already organized and functioning. HPCI has developed a contract with the OCHP, through which it will provide assistance and services to communities and areas in developing community and areawide health planning programs. In addition, it has developed a working agreement with IRMP for exchange information and reports on each organization's activities. A liaison committee consisting of two members from the HPCI Board of Directors and two members of IRAG meet periodically to review progress and identify common problems.

In addition to these activities, HPCI is engaged in special projects related to health planning activities. For instance, it joined with the IMS and the College of Medicine last fall in sponsoring a series of 16 area meetings for physicians on the subject of medical manpower and related matters. It will also participate with these organizations in developing another series of area meetings on delivery of medical services designed not only for physicians and allied health personnel, but community leaders as well.

HPCI is currently involved in planning an educational program to assist and enlighten hospital trustees and administrators, and physicians, on the development and conduct of their own long-range planning programs. The IMS, the Iowa Hospital Association, and other agencies will assist in this endeavor.

In accordance with a directive from the Executive Council, the IMS, along with other interested agencies and organizations, continues to provide substantial financial support to HPCI.

The IMS can be proud of its role in spearheading the formation of the Health Planning Council of Iowa.

S. P. LEINBACH, M.D., *Chairman*

MEDICAL ASSISTANTS ADVISORY COMMITTEE

The Iowa Medical Society was privileged to display an exhibit at the 1968 Annual Meeting of the Iowa Association of Medical Assistants in Sioux City, May 17-18. W. M. Krigsten, M.D., president-elect of the Society, participated in the program.

Delegates and other physicians who have attended the opening sessions of the House of Delegates during the past four years have enjoyed the hospitality of the IAMA at a coffee-bar which is sponsored by the organization. The Medical Assistants group has said it will provide this service again at the 1969 Annual Meeting, and the Society is grateful to the IAMA for this thoughtful undertaking.

As has been past custom, an IMS staff member has been assigned to work with IAMA on pertinent projects and administrative functions.

The Committee commends the IAMA for its many worthwhile activities, and looks forward to its continued growth and progress.

JOHN H. SUNDERBRUCH, M.D., *Chairman*

COMMITTEE ON MEDICINE AND RELIGION

Last July, the Committee on Medicine and Religion met with a representative of the AMA Department of Medicine and Religion to review a "Program Guide for County Medical Societies and Theological Seminaries." The Guide was developed in support of the idea that organized medicine can be of assistance to theological seminaries in the pastoral-clinical training of their students.

Consistent with a recommendation of the Committee, the AMA was authorized to contact county medical societies in areas in the state where theological seminaries are located, and subsequently with the seminaries, to encourage the implementation of the program whereby physicians would assist in the training of seminary students.

On November 4-5, a conference for physicians and clergymen was held in Iowa City, under the sponsorship of the University of Iowa College of Medicine and School of Religion, and in cooperation with the IMS Committee on Medicine and Religion. The theme for the conference was "Handling the Stresses of Life," and members of the Committee participated as group discussion leaders.

The IMS, through its Committee on Medicine and Religion, again cooperated with the Iowa Division of the American Cancer Society in sponsoring a series of physician/clergyman conferences. They were held in Cedar Rapids, Davenport, Ames, Osceola, LeMars, Laurens and Waterloo.

Your Committee chairman will attend a Regional Medicine and Religion Workshop in Chicago on March 1, which is being sponsored by the AMA for chairmen of state committees.

The Committee wishes to take this opportunity to urge county medical societies to continue conducting physician/clergy meetings at the local level, for the purpose of discussing subjects and problems of mutual interest and concern.

PAUL FERGUSON, M.D., *Chairman*

COMMITTEE ON NATIONAL EMERGENCY MEDICAL SERVICE

In light of the overlapping interests of the IMS Committees on Rural Health, Safe Transportation and National Emergency Medical Service with respect to emergency medical service programs, the chairmen of these Committees have been requested to maintain liaison and to coordinate their activities in this regard.

Following a meeting last spring involving the three committee chairmen, a communication was sent to county medical society officials urging them (1) to stimulate voluntary health planning groups at the local or regional level to evaluate the adequacy of ambulance services; (2) to see to it that area colleges and vocational schools offer instruction to ambulance drivers, firemen, policemen, etc., in the emergency care of the sick and injured; (3) to suggest that their hospital staffs provide special training for emergency-room nurses; and (4) to encourage civic leaders and local officials to take the lead in coordinating emergency medical services of all kinds.

At a recent meeting with the director of emergency-planning and operations, State Department of Health, and the deputy commissioner of public health, the Committee reviewed a plan for utilizing a 50-bed natural-disaster hospital, developed by the Health Department. The unit can be transported directly to a disaster site for use as an emergency aid station and/or as a unit to enhance existing hospital facilities.

The Committee has endorsed the "utilization plan," and information on the availability of the hospital, etc., will be provided to each hospital and county medical society in the state.

R. C. LARIMER, M.D., *Chairman*

OSTEOPATHIC AND MD/DO LIAISON COMMITTEES

The IMS Osteopathic Committee and the MD/DO Liaison Committee held meetings on November 20, 1968, and February 19, 1969. The first of those pairs of meetings were held for the purpose of hearing Mr. Throckmorton and Mr. Huston present an outline for the IMS legislative program in advance of the opening of the 1969 General Assembly of Iowa, and enlisting the help of osteopathic leaders in supporting some bills relating to health and medicine and opposing others.

On both dates, some applications from osteopath candidates for the IMS/ISOPS Evaluation and Enrollment Program were reviewed, approved and forwarded to the IMS Judicial Council.

The present status of the Evaluation and Enrollment Program is as follows:

Approved by the IMS Judicial Council	160
Approved by the county medical society but not by the IMS Judicial Council	2
Disapproved by the IMS Judicial Council	14
Hearings held by MD/DO Liaison Committee on appeal from disapproval by IMS Judicial Council	7
Hearings pending	0
No reply from county or pending	21

The February 19, 1969, meetings occurred after the AMA's noteworthy change of policy, in Miami Beach, regarding internship and residency training for osteopathic school graduates, specialist certification for the graduates of approved residency programs, and acceptance of qualified osteopaths as members of county and state medical societies and, eventually, of the AMA. The discussions at both gatherings concerned implementation of the AMA's suggestions, but many different attitudes and ideas were expressed, and there even was some disagreement about what the AMA House of Delegates had intended by its recommendations.

The members of the IMS Osteopathic Committee will make another attempt to formulate some recommendations on which they can agree, and a supplemental report will be presented to the IMS House of Delegates in April.

J. M. RHODES, M.D., *Chairman*

PRECEPTORSHIP COMMITTEE

The Preceptorship Committee has held one meeting since the 1968 annual meeting, and it took place on September 17, 1968, in Iowa City, with Dr. Robert C. Hardin in attendance.

It was agreed that the latter part of the junior, or the early part of the senior year is too late for precepteeships if the preceptors are to have a role in persuading medical students to enter general practice. Good reasons were also advanced for breaking the preceptorships into at least two parts. And finally, it was pointed out that a nine-week period in the student's fourth year in medical school will soon become available for an externship in a community hospital, if the student chooses to use it in that way.

Consequently, the Committee proposed the following three changes in the Preceptorship Program, and the IMS Executive Council approved them on October 23, 1968:

1. Following completion of the student's first year, he is to spend one week with any private practitioner in the State of Iowa.
2. Following his second year, the student is to spend an additional two weeks as a preceptee, preferably with a general practitioner.
3. Following his third year, the student may choose to have nine weeks of experience in the field of community medical practice, as an elective for academic credit. This will be offered by the College of Medicine in coordination with the local medical society.

L. DEAN CARAWAY, M.D., *Chairman*

COMMITTEE ON QUACKERY

In recognition of the official position of the Iowa Medical Society that chiropractic represents a " . . . hazard to rational health care . . . " the Committee on Quackery continues to be involved and interested in all activities and programs designed to expose the true nature of the practice of chiropractic, and all other forms of medical quackery.

At the IMS Fall Conference for County Medical Society Presidents and Legislative Contact Men, one full hour of the program was devoted to a discussion on "The Cult of Chiropractic." Mr. H. Doyl Taylor, director of the AMA Department of Investigation, presented the national overview; John Thomsen, M.D., of Des Moines, a former member of the AMA Committee on Quackery, and Mr. R. B. Throckmorton, the Society's legal counsel, discussed what legislative action is desirable, and the legislative challenge in Iowa; and your Committee chairman reviewed the reasons

why chiropractic is opposed by the medical profession and other segments of the scientific community.

An article on the subject of "Modern Cultism," prepared by Doyl Taylor, was published in the January issue of the JOURNAL OF THE IOWA MEDICAL SOCIETY, and information regarding the nature of chiropractic was published in the February and March issues of the IMS JOURNAL, in the "In the Public Interest" section which is distributed to all Iowa legislators and news outlets.

The Iowa Medical Society is actively opposing a Chiropractic Bill introduced to the 63rd Iowa General Assembly, which seeks to re-define the practice of chiropractic. Detailed briefs regarding the position of the IMS have been provided to members of the Legislature, as well as to representatives of the Society. Among other things, it is being emphasized that the IMS does not oppose chiropractors as persons, but does oppose chiropractic as "an unscientific cult whose practitioners lack the necessary training and background to diagnose and treat human disease." Attention is also being called to a study recently completed by the Department of Health, Education and Welfare (THE INDEPENDENT PRACTITIONERS STUDY) which recommended that Congress continue to exclude chiropractors from the nation's Medicare program.

The Society's Legislative Committee will keep the membership informed of developments with respect to the Chiropractic Bill.

The IMS was represented at the Fourth National Congress on Health Quackery sponsored by the AMA and the National Health Council in Chicago, October 2-3, 1968, by your Committee chairman, legal counsel and staff. The program included informative presentations on chiropractic, nutritional quackery, cosmetic quackery, etc.

In January, your Committee chairman was appointed to the AMA Quackery Committee, succeeding Doctor Thomsen.

In accordance with a recommendation emanating from the Quackery Committee and approved by the 1968 House of Delegates, a special committee consisting of representatives from the Board of Trustees, the Committee on Legislation, the Committee on Medical Education and Hospitals and the Committee on Quackery, met with members of the State Basic Science Board to obtain pertinent and current information regarding the practices and procedures of that group. The meeting proved very beneficial, and there was unanimous agreement by representatives of both the IMS and the Basic Science Board that similar sessions should be scheduled in the future to discuss matters of mutual interest and concern.

R. A. BERGER, M.D., *Chairman*

RURAL HEALTH COMMITTEE

The IMS Rural Health Committee has held no meetings, and no new problems have been referred to it during the past 12 months.

The Committee chairman has been kept informed regarding discussions that the trustees and other IMS groups have held regarding the maintenance of ambulance services in areas where there are shortages of physicians, and about regional short courses that have been presented for police, firemen, ambulance drivers etc. on the care and transportation of the ill or injured.

A number of other matters at one time were concerns of the Rural Health Committee, but now have been given to other IMS groups. For example, physician distribution is now the responsibility of the Task Force on Medical Manpower, and the preceptorship program has its own Committee.

One of the members of the IMS Rural Health Committee, M. E. Olsen, M.D., of Minden, is to represent the IMS at the AMA National Rural Health Conference, at Philadelphia in mid-March. He is likely to hear, at that time, about some new projects which the IMS Committee might well undertake.

After a period of years as chairman, I have asked to be relieved of this position. I wish to thank the members of the Committee for their interest and participation in years past. Also, I wish to thank the staff of the IMS for their assistance. In particular my thanks and appreciation go to Mr. Edward Hamilton who arranged and provided guidance at our meetings.

J. W. GAUGER, M.D., *Chairman*

COMMITTEE ON SPORTS MEDICINE

This past year the Committee on Sports Medicine has concerned itself with a number of topics, in conjunction with the Iowa High School Athletic Association. Further recommendations have been made to the IHSAA with respect to the physical examination of high school athletes; these recommendations have included further suggested alterations in the new physical-examination form, the ultimate objective being a realistic record of the athlete's physical condition, with provision for the keeping of a record of injuries as they are sustained.

The length of practice sessions in hot, humid weather was reviewed once again with the IHSAA, and it is expected the IHSAA will take appropriate additional steps to regulate the amount of practice time and to provide for adequate rest periods. The Committee has recommended to the IHSAA the use of a psychrometer during this type of weather in order better to determine proper lengths of practice time. The Committee has noted that most schools now use some sort of drink containing electrolytes to replace fluid-loss during practice sessions.

Two members of the Committee participated last October in a panel discussion with coaches and nutritionists at the Nishna Valley-Emerson School. The Committee is anxious to stimulate further regional programs of this type. The Committee elected to discourage Society sponsorship of a speaker at the Annual High School Coaches' Clinic. Poor attendance at sessions on subjects related to health and/or conditioning in previous years was the reason for the Committee's taking that position.

Considerable attention has been given by the Committee to the matter of weight maintenance and weight reduction among Iowa high school wrestlers. The Committee and the Society have previously endorsed the findings and recommendations of the AMA Committee on the Medical Aspects of Sports on this subject. Last year's Committee told the House of its concern over cases in Iowa where drastic weight loss had occurred among high school wrestlers. The Committee then received endorsement from the House of Delegates to cooperate in the conduct of a weight determination experiment with the IHSAA and C. M. Tipton, Ph.D., of the Exercise Physiology Laboratory at the University of Iowa. A formula of skeletal measurements has been devised at the University of Illinois, over a 25-year period, by a researcher named Hall, and an Iowa experiment this past fall involved

the measuring of approximately 1,000 high school wrestlers from 30 different schools, and it showed a high degree of reliability in the prediction of the weights of prep. wrestlers, particularly those in the weight classes under 146 pounds. Predicted weights for the heavier classifications appeared to be less valid, and a change in the measurement formula may be necessary.

It is the conclusion of the Committee and of Dr. Tipton that the project should be continued on an experimental basis for another year, to test its validity further. It is anticipated that the group of participants in the experiment will be broadened in the next period of measuring. It has also been arranged for the participants in the 1969 state high school wrestling tournament to have the measurements taken and the Hall Formula applied to them. The House will be kept informed on the progress of this project.

The Committee wishes to extend its appreciation to Dr. Tipton and to Mr. Bernie Saggau, executive secretary of the IHSAA, for their significant and effective contributions to this project. It is possible that the Committee will make a request for financial assistance from the Society. It has been estimated that the IHSAA has invested approximately $5,000 in the project to date.

The Committee anticipates holding another meeting prior to the 1969 IMS Annual Meeting, and it will submit a supplemental report to the House if one appears necessary.

W. R. VAUGHAN, M.D., *Chairman*

COMMITTEE ON PARAMEDICAL SERVICES

In various ways over the past year the Society has maintained an interest in the activities of those important paramedical groups which offer support to the physician in the conduct of his practice.

The Society has followed the efforts of several paramedical groups as they have considered and, in some cases, sought statutory licensure. For example, the Society is currently counseling with the opticians, through the Committee on Eye Care, in the development of a legislative proposal which, if enacted, would serve as legal registration mechanism for them.

The Society is aware of the action taken by the Iowa Association of Pathologists last year, opposing the licensure of medical laboratories and medical-laboratory personnel, and it will keep this in mind should the matter come up again.

Through the Subcommittee on Psychiatric Care, the Society has had some dialogue with the clinical psychologists regarding their interest in securing state licensure. As this report is prepared, no proposal to license psychologists has been presented to the 1969 Iowa General Assembly.

As has been the case through the years, and members of the House of Delegates are aware, the Society has encouraged paramedical groups to maintain a strong voluntary registration program in preference to statutory licensure.

The Society is pleased that several of the state paramedical groups shared in sponsoring the special "State of Health Care in Iowa" supplement published in the November 24 issue of the DES MOINES SUNDAY REGISTER. The groups included the Iowa Association of Medical Assistants; the Iowa Chapter, American Physical Therapy Association; the Iowa Nurses' Association; the Iowa Pharmaceutical Association; the Iowa Society of Medical Technologists; and the Licensed Practical Nurses Association of Iowa.

It should be noted additionally that the Society's Task Force on Medical Manpower has a special section which is concerned with medical and paramedical recruitment and education.

J. T. BAKODY, M.D., *Chairman*

STATE CLAIMS REVIEW COMMITTEE

As this report is written the State Claims Review Committee has approximately five cases under study, and it will be meeting prior to the House of Delegates to consider those cases in detail.

Since the last Annual Meeting, approximately 60 cases have been referred to county claims review committees for recommendation. The third party involved has received and has agreed with the county medical society's recommendation in all but 10 cases. Those 10 cases have been referred to the State Claims Review Committee for further consideration and study.

If necessary, following the upcoming meeting of the State Claims Review Committee, a supplemental report will be submitted to the House of Delegates.

R. S. GERARD, II, M.D., *Chairman*

TASK FORCE ON MEDICAL MANPOWER

A primary objective of the Task Force on Medical Manpower is to involve the profession and the public in developing ways and means of maintaining and increasing the number of physicians in the state, so that no citizen will be denied access to high quality medical care.

A major project of the Task Force last fall was the arranging of series of 16 area meetings for IMS members, for the purpose of informing physicians about the medical manpower situation in Iowa, and to suggest how, through community planning, they could consider their regional problems and the solving of these problems. The meetings were co-sponsored by the University of Iowa College of Medicine and the Health Planning Council of Iowa. The feature of the meetings was a presentation by John C. MacQueen, M.D., associate dean, University of Iowa College of Medicine, in which he reviewed statistical data indicating manpower trends and health resources, and focused attention on the region in which each individual meeting was held.

As a follow up to this project, with approval of the Executive Council, and again in cooperation with the College of Medicine and HPCI, the Task Force will arrange a series of meetings in the fall of 1969 which in addition to physicians, will involve other professional personnel and representatives from various additional segments of the community. The purpose of these sessions will be to consider what can be done at the local and regional level to improve the availability to and preserve the quality of medical care in this state.

Another important project of the Task Force this past year was the development of a general statement outlining the Society's interest and involvement in medical manpower studies and projects, and offering some ideas and suggestions with respect to alleviating existing or potential inadequacies in the provision of medical care.

The statement was recently approved by the Executive Council for public release and distribution, and it will also be utilized as a point of reference for discussion purposes at the fall series of area meetings mentioned above.

The commentary developed by the Task Force and approved by the Executive Council follows:

In recent years interest in the delivery of health care has grown by leaps and bounds, in Iowa and across the country. There are countless reasons for this, e.g., a strong desire for topflight care by a population which is increasing in numbers and in sophistication; a mounting realization that the health care delivery pattern of 10, 20 or more years ago is not necessarily a blueprint for today's needs; and an increasing awareness that health professionals and paramedical personnel at all levels are in short supply. These four observations suggest the presence of a broad and complex subject area, one which is receiving much thoughtful attention from the medical profession, from the allied health organizations and from interested members of the general public.

In evaluating the availability of medical service it is essential that a variety of factors be analyzed: physician distribution; transportation and communications facilities; the movement of much patient care from the home to the doctor's office and hospital; the changes in organizational patterns of practice; the increased use of highly automated equipment, etc.

Important as these factors may be to the delivery of modern health care, they represent what might be characterized as a second line of concern. Of primary importance is a supply of medical and paramedical manpower adequate to meet today's growing demand for quality health care services in both the rural and urban areas of the state.

To attack the challenge implicit in the preceding, the Iowa Medical Society has formed a Task Force on Medical Manpower. Appointed in 1967, this 21-member group was instructed to study the total medical manpower situation in the state. It was called on to recommend and to implement programs designed to resolve or alleviate the problems identified during the investigative process.

The Task Force has devoted its effort principally to physician recruitment. Much consideration has been given to those elements which motivate the young physician in his selection of a practice site and the Task Force has directed much of its attention to those students attending the University of Iowa College of Medicine. In the spring of 1968, the Iowa Medical Society, in cooperation with the College of Medicine and the Iowa Chapter of the Student American Medical Association, sponsored a special *Conference on Medical Practice Opportunities in Iowa* for all medical students and their wives. This conference has been approved again for 1969 and hopefully will become an annual event.

Last fall and winter the Task Force conducted a series of informal meetings at each of the University's several medical fraternities. Those evening sessions afforded the medical students an opportunity to visit with private practitioners about the opportunities and advantages of practicing medicine in Iowa. It is anticipated that those sessions will be continued.

Other programs have been initiated by the Task Force to foster a close contact with current students and recent graduates of the College of Medicine who are serving internships or residencies in or out of the state. Close liaison has been established by the Task Force with the Iowa Chapter of the Student American Medical Association as a means of assisting and counseling medical students as they make career plans.

The Task Force on Medical Manpower is a relatively new component within the organizational framework of the Iowa Medical Society. The involvement of the state's medical profession in the field of manpower and recruitment is of long-standing. One excellent and tangible illustration of the profession's positive and continuing involvement in replenishing its ranks is represented by the Scanlon Medical Foundation/Iowa Medical Society. For nearly 20 years, this profession-supported Foundation has been a source of financial assistance for young Iowans seeking to become physicians. Since 1952, the Foundation has loaned over $300,000 to more than 225 medical students, approximately one-half of whom now reside and practice in Iowa.

The Iowa Medical Society is a strong advocate of health care planning and it spearheaded the formation of the Health Planning Council of Iowa. This is a voluntary, non-profit organization whose membership consists of a widely representative group of health, governmental, civic, business and professional organizations in the state. Its purpose is to promote, through coordinated planning, the efficient use of health care resources—manpower, facilities and money.

In the fall of 1968, the Iowa Medical Society, through its Task Force on Medical Manpower and with excellent support from the University of Iowa College of Medicine and the Health Planning Council of Iowa, conducted a series of medical manpower meetings throughout the state. These meetings provided physicians an opportunity to make a candid evaluation of the manpower inventory in Iowa—past, present and future.

As a logical and planned follow-up to the 1968 meetings for medical society members, the IMS Task Force on Medical Manpower, again in cooperation with the College of Medicine and the Health Planning Council of Iowa, plans to conduct another series of meetings involving in addition to physicians, other professional and paramedical personnel, as well as representatives from various additional segments of the community. The primary purpose of this second series will be to provide an opportunity for professional and community leaders to discuss ways and means of assuring continued high quality health care to the citizens of Iowa.

In an effort to stimulate discussion and the production of ideas, the IMS, through its Task Force on Medical Manpower, has developed the following comments and suggestions:

I. *Medical School*

1. Over the years, the University of Iowa College of Medicine has increased its enrollment in relation to the availability of funds for faculty and facilities. In recent years, the freshman class has grown from 100 to 120 members, and is presently at 131. The size of the entering class will be enlarged to 160 with the completion of the new basic-sciences building. The Iowa Medical Society has given its support to the enlarging of the entering class to 200 medical students when faculty, facilities and resources are adequate to maintain a high quality education program for that number.

2. Public opinion suggests that the family—or primary—physician is the most desired physician, and the one generally thought to be in shortest supply in Iowa. Programs to gain more family physicians are at varying states of development throughout the country. The American Medical Association is creating a "Specialty Board for Family Practice." The IMS believes strongly that the University of Iowa College of Medi-

cine should place greater emphasis on the education and training of family physicians. Consideration must be given to the development of a Department of Family Practice within the College of Medicine, utilizing the private medical community as a family-practice training ground.

3. The preceptorship program has been re-evaluated and up-dated and should be continued, for it provides medical students a unique and valuable opportunity to observe on a first-hand basis the private practice of medicine.

II. *Physician Recruitment*

1. There must be increased cooperation between the entire medical school faculty—clinical and preclinical—and the state's private practicing physicians. This close relationship is essential to a program which has as its goal more Iowa medical graduates in practice in the state. Community leaders must also be stimulated to participate in active and enthusiastic physician-recruitment programs. The large majority of medical students at the University of Iowa are from Iowa towns and farms. Because these individuals are leaving the state, we Iowans must "sell" our communities to the medical students. We must convince them that Iowa has many excellent places in which to live and practice medicine.

2. Consideration should be given to the desirability of a high-powered nationwide physician-recruitment program operated at the state level and patterned after the recruitment programs of business and industry.

3. The graduate of a modern medical school expects to locate in a community where all medical services are reasonably accessible. These include modern diagnostic facilities, hospital facilities, and other consulting physicians. For this reason, Iowa communities should utilize the expertise and knowledge of the medical school, the State Medical Society, and the health planning agencies in assessing their medical needs and in determining the potential for meeting such needs. Comprehensive information on establishing and maintaining a medical practice in Iowa, and data concerning various types of associate practice arrangements will continue to be maintained in the office of the Iowa Medical Society.

III. *Delivery of Medical Care*

1. It is necessary to stress at the outset the importance of local, voluntary development of such "systems."

2. Major consideration should be given to associate practice arrangements, recognizing the multi-directional patterns which are possible.

3. There should be constant efforts to improve all transportation elements within the state, so as to make transit to medical care facilities as rapid and safe as possible. Included therein are such factors as:

a. Advantage of all-weather roads.
b. Use, as a guide, a 30-minute time interval to a care facility.
c. Merits of ambulance vans, helicopters, snowmobiles, etc., for movement of the ill and injured.
d. Involvement of representatives of local boards of supervisors, city councils, State Highway Patrol, planning groups, and any other responsible bodies, in the transportation aspects of health care.

4. Maximum study and consideration should be given to communications systems which make medical practice effective and efficient. Such communications can weld together solo practitioners, and make possible loose but good coverage arrangements, allowing the physician a great degree of freedom.

5. Study should be given to the feasibility of providing each patient a standardized card on which basic medical data might be recorded.

6. Efforts should be made to explore the merits of centralized local or regional services for physicians, e.g., billing, purchasing, multiphastic screening devices, etc.

7. The need for additional emphasis on industrial medicine should be evaluated as the state moves more in this direction. It is conceivable the industrial setting is one in which aspects of preventive medicine can be offered on a more extensive basis.

8. The public must be provided information about health care in order to achieve a broad understanding of the factors contributing to an efficient delivery system.

IV. *A Proposal Relating to Paramedical Personnel and Medical Practice in Iowa*

Regardless of the numbers of future physicians graduated from our medical school, and regardless of an increasingly effective program of physician recruitment, it is necessary that the available physicians be provided with increasing numbers of "hands" and "heads" so that more effective use may be made of their time and energy in dealing with the increasing burden of health problems.

These added "hands" and "heads" are to be found in a more widespread and thoughtful use of (1) paramedical personnel and (2) electronic-mechanical devices such as computers and data processing systems. Following are some thoughts and suggestions of the IMS in this regard:

1. Both physician and patient must recognize the inevitable: The face of medical practice is changing. The emphasis will fall on associate practice, amplified by paramedical personnel and made increasingly efficient by new services, devices, and techniques. "Associate practice" is anything from a simple partnership association, through more formal "groups," clinics, and possible forms of voluntary "regional health care," based on medical referral patterns.

2. Paramedical help may be provided in any one of several ways, depending upon local community situations: An expansion of the individual physician's office force; the growth of partnership or clinical facilities; or by the creation of a Medical Utility, designed by and for the use of all physicians in a "medical community."

3. The Medical Utility is a facility in which paramedical personnel are concentrated and utilized to perform such tasks as now engage the physician, to the detriment of the fullest application of his time and talents to clinical health problems. That is, the Medical Utility will offer history-taking functions, multiphasic screening services, and such other aids as the physician may require or desire.

4. Such a Medical Utility would be available to a patient *only* on prescription by his physician and all results of studies would be sent only to the referring physician.

5. The Medical Utility would be available to *any* physician of the "medical community" who wished to make use of its services.

6. Such a Medical Utility *could* offer such services to the busy physicians as:

a. A self-administered history.
b. Height, weight and chest expansion.
c. Blood pressure, pulse, respiratory rates, and temperature.
d. Intra-ocular pressures, visual acuity, and visual fields.
e. 90 mm chest X-ray.
f. Mammograms in females over age fifty.
g. One-lead electro-cardiogram with computer interpretation.
h. Vital capacity and several other pulmonary function studies.
i. Clean-catch urine in females.
j. Pap smear.
k. 5-tone audiogram.
l. A battery of blood tests, both cellular elements and chemistry. . . . And such other tests as the physician deems necessary.

7. A Medical Utility could be established as a simple outgrowth or expansion of existing medical groups or clinics; or by an interested community *in concert with the medical physicians*. In any event, such a facility would be dominated, shaped, and controlled by the physicians.

8. The impact of such a Medical Utility upon hospital utilization must only be casually considered, to realize the great numbers of patients more satisfactorily handled by such means, rather than as hospital inpatients.

9. The Committee feels that the costs of such a battery of tests would probably commend themselves to insurance companies (Blue Cross and Blue Shield) as a good investment—considering the financial burden this would probably remove in the form of lessened hospital utilization.

10. The data from such a Medical Utility should be allowed, when the occasion arises, to replace certain entrance studies now required by most hospital staffs.

11. The "hard data" derived from such a facility should be stored in the computer (also possibly the diagnosis and treatment) for subsequent retrieval for physician use, on the patient's request.

The IMS believes that something very much like a Medical Utility is going to become necessary, if the important aspects of private practice on a fee-for-service basis are to be preserved. Some such device could give *all* physicians direct access to the facilities and services of a fine medical clinic, and yet allow the individual physician to continue his own practice, in his own fashion, at his own speed, determining his own hours and fees.

Other methods of conserving the physician's time and energies, freeing him for more hours of actual *patient care* which could be implemented include:

a. In the hospital, consideration should be given to the use of self-administered history forms. Properly trained personnel (or recording equipment) should be allowed to record the orders, findings, and requests of physicians.
b. The creation of group-billing and medical insurance handling facilities should be encouraged.
c. The use of standard hospital, insurance and billing forms should be promoted.
d. Hospital accrediting agencies should be brought to an understanding that the physician's *repeated* signature on a medical chart does not make it better or more accurate.
e. The IMS felt strongly that quasi-physicians should not be trained: no bachelor-of-science physicians and no mid-wives. The highly specialized training of certain nurses as pediatric assistants, obstetrical assistants, or surgical assistants may have a place in our future.
f. The training and recruitment of paramedical personnel should be expanded as rapidly as possible, i.e., nursing schools, L.P.N. schools, community colleges, schools for laboratory technicians, etc. Also a drive should be made to contact military personnel who have had medical experience, i.e., corpsmen, technicians, etc.

It is the considered decision of the IMS that time is running out! That paramedical personnel must be trained and concentrated within suitable facilities and with adequate equipment so that they may shoulder the mechanical, repetitive tasks of medicine—freeing the physician for decision-making, a clinical and professional area for which he alone is uniquely qualified.

V. *Summary*

The IMS has prepared this statement (1) to summarize the recent efforts and accomplishments of the Iowa Medical Society in the medical manpower area, and (2) to provide the Iowa medical profession with guidelines relating to the delivery of medical care in the future.

On May 7, 1968, in cooperation with the College of Medicine and the Iowa Chapter of the Student American Medical Association, the IMS sponsored a program for all medical students at the University of Iowa, and their wives. The general theme of the program was "Medical Practice in Iowa." A similar program will be presented in Iowa City in the spring of 1969.

A statement developed by the Iowa Nurses' Association on "Dependent and Independent Nursing Functions for Registered Nurses" is currently under study by Section III of the Task Force on Nurse Recruitment and Education, representatives of the INA, and legal counsels of the IMS and INA. The statement was drafted in response to a growing need by nurses for guidelines and some measure of protection in the performance of nursing activities. Following further study recommendations of the Society's Committee with respect to the statement will be presented to the appropriate policy-making body of the IMS.

In concluding this report, the Task Force wishes to acknowledge the time and effort put forth by IMS officers and staff in creating and coordinating the outstanding newspaper supplement titled "State of Health Care in Iowa" which was included as a part of the November 24 edition of the DES MOINES SUNDAY REGISTER.

The Task Force will continue to study problems relating to medical manpower and to offer constructive suggestions and recommendations regarding ways and means of assuring continued provision of high quality health care to the citizens of Iowa.

B. M. MERKEL, M.D., *Chairman*

COMMITTEE ON VOLUNTARY HEALTH AGENCIES

Members of the medical profession in Iowa continue to give of their time, knowledge and leadership to the programs of various of the state's voluntary health agencies. For instance, IMS member physicians serve as presidents of the Iowa Mental Health Association;

Iowa Heart Association; the Iowa Chapter, Arthritis Foundation; and the Iowa Division, American Cancer Society. Service such as this exemplifies the Society's belief that doctors should provide as much guidance and leadership as possible to these numerous worthwhile organizations.

It is gratifying to report that several of the state voluntary health organizations accepted the invitation of the Iowa Medical Society to share in the sponsorship of the special 16-page "State of Health Care in Iowa" report issued as part of the DES MOINES SUNDAY REGISTER on November 24, 1968. Those voluntary agencies which assisted with the cost of this special supplement included the American Cancer Society, Iowa Division; the Arthritis Foundation, Iowa Chapter; the Easter Seal Society for Crippled Children and Adults of Iowa; the Iowa Heart Association; the Iowa Tuberculosis and Respiratory Disease Association; the Muscular Dystrophy Association of America; and United Cerebral Palsy of Iowa.

In the supplement's commentary on voluntary health agencies there are several salient paragraphs worthy of insertion in this report:

"The voluntary health movement is a unique phenomenon, in Iowa and the nation. It is a movement which has contributed and is contributing in many ways to the improvement of health and to the eradication of diseases. . . ."

"Though concerned specifically with separate maladies, Iowa's voluntary health agencies share certain similarities. All are non-profit, charitable corporations, and all or most are affiliates of national organizations. They are governed by voluntary boards, and their principal support comes from voluntary contributions made by the public in response to fund-raising efforts.

"There is wide variation among the aims and programs of the several organizations. In general though the activities touch one or more of three areas: public and professional education, research, and service. The nature of the disease or condition with which the agency is concerned and the size of funds available combine to influence the direction of a particular agency's program."

The Society was approached this past year by the newly formed Iowa Chapter of the National Cystic Fibrosis Research Foundation with a request that the Society provide medical advice and counsel as possible. The Committee on Voluntary Health Agencies has been requested to serve in this manner.

The 1968 Iowa State Fair "Hall of Health" again provided the IMS an opportunity to work cooperatively with voluntary health agencies. Several agencies accepted the invitation of the Iowa Health Council to present health education exhibits in the "Hall" at the State Fair. This effort is coordinated by the Iowa Medical Society and plans are underway for a similar project in 1969.

The members of the Committee have recently been provided the new AMA Directory of National Voluntary Health Organizations for reference use.

C. E. SCHROCK, M.D., *Chairman*

ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY

The Woman's Auxiliary to the Iowa Medical Society continues active participation in and support of health projects recommended or assigned to it. We commend the members on their cooperation and assistance to their medical societies at both the state and local level. Because it is obvious that they share the aims and principles of the medical societies they have been entrusted with increased responsibilities.

Iowa's Auxiliary work has been recognized at the national level this year through the election of Mrs. Howard Ellis as North Central Regional Vice-President, and the appointment of Mrs. Max Olsen as North Central Regional Health Careers Chairman. Mrs. Allan Philips has also been recognized by being appointed national chairman of the Homemaker Service Committee.

The Health Careers Committee continues its efforts in the recruitment of new members of the health team, through Health Careers and Future Nurse Clubs in junior and senior high schools. Many of these clubs are under the direct sponsorship of county Auxiliaries, and others depend on Auxiliary members for their programs. The Committee also furnishes much material to high school counselors and club leaders.

The Auxiliary's Health Education Loan Fund of approximately $15,000.00 provides assistance to students in nursing and technology, and thus, in many cases, helps to increase the membership of the health team. This is a revolving fund now in its 27th year. Its loans have been repaid as scheduled, in most instances, and new loans are made each year. The fund is administered by a very efficient and dedicated committee.

The AMA-ERF Committee raises funds for the support of medical schools and medical research. It not only achieved the goal assigned it by the national committee, but exceeded it by $606.90. Indeed the Iowa Auxiliary was awarded a plaque at the national convention in 1968 for the greatest per cent of increase by any state in the North Central Region. Its goal this year calls for an even greater increase. The Auxiliary members' active participation assures additional funds from AMA-ERF, not only for University of Iowa Medical College, but for other schools, if the donors so designate.

Among its Community Health Projects, the Auxiliary continues presenting its Volunteer Health Service Award, which has proved to be an excellent public relations device for county Auxiliaries. More of them are participating each year. The state award winner is recognized each year at the Auxiliary's annual meeting. County Auxiliaries also are cooperating with the Iowa Easter Seal Society in helping to sell handcraft items made by homebound handicapped persons. In several counties they arrange for sales locations, and handle all the details of the sales. This is an annual volunteer service project for the participating county Auxiliaries, and receives a top priority from them.

Other committees have been working on their particular assignments for the year, in Safety and Disaster Preparedness, Mental Health, International Health and Rural Health.

One of the major projects for the year was a continental breakfast and program for the wives of the Iowa legislators and executive officers.

THE WOMAN'S AUXILIARY NEWS serves the state and county Auxiliaries and members-at-large as a very useful means of communication. It is distributed to all members each month.

The Iowa Auxiliary held a statewide workshop for county Auxiliary officers and committee chairmen, using "Fall Round-Up" as its theme. It was extremely informational, and its originality was thoroughly en-

joyed by all in attendance. A good percentage of county Auxiliary officers, as well as all state officers and committee chairmen attended.

The Auxiliary's Advisory Committee takes pride in the accomplishments of the leaders of this women's group, but even more important to the prestige and successful program of the organization is the loyal cooperation of each individual county member.

No new Auxiliaries were organized the past year. Increasing the membership is every member's opportunity and responsibility. County medical societies are urged to support and encourage organized Auxiliaries, and in smaller counties to urge doctors' wives to become members-at-large.

WM. M. KRIGSTEN, M.D., *Chairman*

COMMITTEE ON ORGAN TRANSPLANTATION

The Committee on Organ Transplantation was appointed this year in the belief that the Society should have a specific body to follow developments in this rapidly emerging area. Also, this past year, the Society was invited by the State Department of Social Services to provide expertise to the Department as it develops policies and procedures relating to transplantation. The Committee has been designated to advise the Department of Social Services in this way.

The Committee held its first meeting in January, and has tentative plans for a second meeting in April, in advance of the 1969 IMS Annual Meeting.

At its January meeting, the Committee shared its knowledge of developments in the transplantation field and offered observations as to what might be desirable and forthcoming in Iowa in the foreseeable future. This discussion included the following points: (1) Iowa should consider the establishment of dialysis centers (4 to 10) in various parts of the state to handle subacute or chronic renal cases. Training of physicians to direct, and paramedical technicians to staff, these centers should begin soon. This training should logically have its base at the University of Iowa. (2) Home dialysis will become efficient and less costly with the passage of time. The cost of a home dialysis unit is now about $7,000. (3) The cost of kidney transplantation is exorbitant, with cases running between $35,000 and $50,000. The Committee has estimated, however, that the range of transplantation costs should drop to between $5,000 and $15,000 as time passes. (4) The University of Iowa will have the personnel and facilities assembled by July to begin renal transplants. It is expected it will begin performing kidney transplants in September on a once-a-month basis. It is estimated that the number of transplants annually in Iowa may run to between 90 and 100, since the state has a 2.8 million population; and (5) The highly vexing phase of transplantation, in addition to the medical and surgical aspects, is the establishment of criteria on which to select transplant patients. This area is deserving of much serious contemplation.

The Committee was informed that between July, 1967, and December 30, 1968, the Department of Social Services spent $61,278 for kidney transplantation. The number of patients involved was approximately a dozen, most of whom had some insurance or other resources with which to meet part of the costs. The Committee was told that most of the transplant cases under Title XIX will no longer receive assistance because of the recently announced suspension of "medical only" persons from the Medicaid program.

The following recommendations were made by the Committee: (1) That the Iowa Medical Society give particular attention to the means of funding patients who require this special mode of treatment. (2) That the Society explore all sources of financing, including state, federal and private insurance possibilities, with particular emphasis on securing a state appropriation to assist transplant patients with the cost of their care. (3) That the Society endorse the AMA Ethical Guidelines for Organ Transplantation as drawn by the AMA Judicial Council and approved by the AMA House of Delegates in June, 1968.

The Committee expressed strong support for the Society's efforts to gain passage by the 1969 Iowa General Assembly of a Uniform Anatomical Gifts Act. In this vein, the Committee shared the hope that the state's entire medical community would cooperate in the acquisition and retrieval of organs.

The Committee tenatively plans to invite representatives of Blue Shield and the private insurance industry to its next meeting to discuss the economics of organ transplantation.

R. D. LIECHTY, M.D., *Chairman*

(This concludes the material that was published in the HANDBOOK FOR THE HOUSE OF DELEGATES.)

Dr. Kersten then introduced Mr. David Weihaupt, of Chicago, assistant director of the Division of Public Affairs of American Medical Association.

The presentation of Supplemental Reports was the next order of business, the first of which were the Reports of Officers. Each report was referred to the appropriate reference committee for study.

Supplemental Reports

REMARKS OF C. W. SEIBERT, M.D.

IMS PRESIDENT

(Referred to the Reference Committees on Reports of Officers and on Miscellaneous Business.)

Much is to be accomplished this morning. And the minutes pass quickly. In the physician's life, whether he is in his office, at the hospital or in attendance at a professional meeting such as this, the old expression "Time is of the essence" has real meaning.

Change: What Kind? How Much? When one ponders this phrase it soon becomes apparent that the two succinct questions it contains are only a springboard to more questions. Answers . . . well, they come less easily . . . after much agonizing and thoughtful contemplation; then, certainly, no one can be entirely certain of their rightness.

It will be my pleasure and privilege to explore this provocative theme at 9:00 a.m. tomorrow when the 1969 General Sessions open. I invite your indulgence now for the READER'S DIGEST version of my Monday comments.

In a manner not unlike that of the circus barker, let me tout briefly the General Sessions planned Monday and Tuesday at the Hotel Fort Des Moines. The 1969 Program Committee has done an outstanding job. Under the leadership of Drs. Don Newland and Jim Kelsey, the Committee has developed a pair of day-long sessions which examine two real basic issues. On Monday: "Imaginative Approaches to the Delivery of Medical Services to the Rural Community." On Tuesday: "Adult-Adolescent Hang-Ups." Please attend to the extent possible.

Let me repeat again my theme for tomorrow morning: "Change: What Kind? How Much?" Change, in a word, characterizes the year in which I have been your president. We have a new national administration. We have a new state administration. Newly elected leaders at both levels have come into office at a turbulent time. The agony of Vietnam, increasing crime, campus uprisings, the high cost of government versus excessive taxation, racial tensions—all these are manifestations of conflict despite a period of general prosperity. Crime is increasing even though poverty is decreasing. Racial tension is mounting at the time of the American Negro's greatest progress. The number of people living below the so-called poverty line has dropped from 40 million to 26 million. The general levels of health and education have increased substantially. Yet turmoil and unrest continue. Why? Many factors contribute. Technologic advance. Economic anxiety. Urbanization.

Against this backdrop, we come to grips with the matter of health care—who is going to deliver it and how? who is going to pay for it and how? how is the quality to be maintained? etc. Complex questions, indeed.

Simply stated, *without good health,* the state's 1,176,000-member work force—and their families—would be in jeopardy.

Has Iowa achieved any degree of success in the maintenance of health and in the delivery of health care? In the current clamor about shortages, deficiencies and the like, you might think not. We sometimes lose sight of the actual and significant progress which has been made. While life-expectancy figures reflect various factors, they do constitute a sort of health-care barometer. In 1900 Americans lived to an average age of 47.3 years. Contrast this with Iowa's most recent life-expectancy figure of 71.9 years. Iowa ranks second only to Connecticut in life expectancy. This fact suggests the presence of change, a progression or change for the better.

In the broad sense, change, when it relates to health care, comes about hopefully out of a desire to supply high quality care to every person in a state or in the country. This breaks down to the prompt availability of well-trained physicians providing personal care at fair and reasonable costs in good facilities. And this represents a formidable challenge, the total realization of which may not be possible in the age in which we live. Yet it is the goal to which we must aspire.

The social planners would have you believe they have the blueprint for a standardized and perfect system of health care. In my opinion the idea of standardization is frightening. The more regimented and unflexible a system is, the less likely it is to fulfill the needs of those for whom it is intended. Rather, voluntary and localized application of energy to meet unique needs is the formula for an effective result. In my judgment, more and more federal encroachment will only foster the substandard.

Flourishing in Iowa and all across the country is the idea of total health-care planning. Tied to it is a great emphasis on coordination. And this is good. However, one cannot but be fearful about the duplication of effort or overlapping in much of the current planning. In the planning which has gone on in Iowa—by the IMS-inspired Health Planning Council of Iowa, by the federally spawned Comprehensive Health Planning Project, by the Iowa Regional Medical Program, etc.—the problem of manpower appears to be uppermost and most elusive.

We know that conservatively 50,000 Iowans work to protect the health of the total population. They serve at a time when there is an every-increasing health consciousness on the part of the public. An analysis of Iowa employment groups shows a 36 per cent increase in the number of health-care workers between 1961 and 1968. Despite this growth, there is a genuine concern in the minds of many Iowans as to the state's ability to balance the supply of personnel—professionals and supportive workers—with the demand for services. Certainly the full energies of many persons, and these include the medical profession, contrary to what some state legislators seem to think, are being directed at assuring a balance between the supply and the demand.

The general shift or migration of Iowa's population from farm to town and city is well known. The urban population in Iowa increased from 47 per cent in 1950 to 53 per cent in 1960. A parallel but more dramatic pattern is apparent in the health-care field. In 1947 slightly more than 50 per cent of Iowa's medical doctors practiced in the 16 most populous counties; in 1957 this share increased to 61 per cent; and in 1967 two-thirds were in the larger communities. And the change in the total number of medical physicians in these 20 years was no more than 23—from 2,381 in 1947, to 2,404 in 1967.

I should insert here that there are about 400 doctors of osteopathy in the state of Iowa, and more than 50 per cent of them are in communities of 5,000 or fewer people. The rapport in Iowa between medical and osteopathic physicians has been developing on a positive basis for a number of years. Now, national measures have been adopted which provide the stepping stones to an even closer relationship. This is a subject of considerable importance, and I am sure attention will be devoted to it at this Annual Meeting.

The accessibility of physicians to Iowans varies quite markedly from one part of the state to another. It is possible to report a reasonably favorable overall doctor-patient ratio—1 to 950—on the basis of statewide population figures. However, the ratio differs dramatically, either favorably or unfavorably depending on where you live. Rapid transit over improved roads tends to ease problems, but for residents in high-ratio areas, this is seldom an adequate answer.

The status of health-care facilities in the state is a broad subject worthy of extensive assessment, but at another time. Suffice it to say that growth or change over the past two decades has been remarkable, to put it conservatively. More than one-half billion dollars' worth of health-facility construction has occurred in Iowa since 1947. There have been no fewer than 174 construction projects during this 22 year period. There are 14,000 acute hospital beds now, an increase of approximately 6,000 over 20 years ago.

While obviously there is more on the asset side of the Iowa health care ledger than on the liability side, there are indeed areas of substantial concern. Manpower is the most acute one. It poses a number of questions having to do with change. Shall we need to entrust qualified paramedical personnel with greater responsibility for the more routine tasks we now perform? Probably, yes. Shall we need to produce greater numbers of physicians and paramedical workers and entice a greater proportion of them to stay in

Iowa? Obviously, yes. Shall we need to modify the medical education curriculum to accomplish this? Obviously, yes. Shall we have to do our utmost to balance the elements of personal care and efficient operation so as to maintain costs within the reach of the Iowan who finds satisfaction in paying his own way? Most assuredly, yes. Can we as physicians stand aloof and allow the plans for delivery of health care to be charted by economists, sociologists, half-interested laymen and the like? Obviously, no.

I supply no magic formula for rectifying the deficiencies which may exist or which may loom on the horizon. I know of no one who does. I urge this 1969 House of Delegates to endorse fully the efforts of the Society's Task Force on Medical Manpower. I call on this House to support the Task Force's contemplated program of fall regional meetings. I request the House to challenge the Task Force to carry forward and expand its work.

I also call upon you to recognize the formidable contribution of the Scanlon Medical Foundation to the field of medical education, and to request its Board of Directors to seek out new ways of serving in the broad area of manpower.

Finally, I strongly recommend that close attention be given by appropriate officials or committees of the Society to statements and/or recommendations that will be presented at the general session program tomorrow concerning "Imaginative Approaches to the Delivery of Medical Care." We anticipate some interresting and innovative ideas that will undoubtedly merit further exploration and consideration by the medical profession.

Let me recall the phrase used at the outset of these remarks: *Change:* Yes. *What Kind?* An orderly, well-conceived kind derived from leadership provided by the medical profession. *How Much?* That amount which brings to the citizens of Iowa good health care, reflecting the scientific progress of the day.

Thank you.

BOARD OF TRUSTEES

GENERAL ACTIVITIES—SECTION I
Presented by J. H. Sunderbruch, M.D.
Chairman, Board of Trustees

(Referred to the Reference Committee on Reports of Officers.)

Just one year ago I appeared before the House of Delegates to present a portion of the Board of Trustees' supplemental report, just as I am doing today. Among other things, I told you that the Board had "made every effort to enhance the stature and widen the scope of influence of the IMS, through firm and responsible leadership." I also said that the Board had "endeavored to maintain an effective, efficient, streamlined organization, so that the dues-paying members—individually and collectively—can be assured of getting their money's worth."

Both of those objectives have been kept uppermost in mind during the past 12 months. Perhaps a very quick summing up of some of our major achievements and activities will indicate what measure of success we have had.

Blue Shield. Dr. Wicks will report to you in detail about our continued good relationship with the officials and staff of Blue Shield. Suffice it to say now that your officers met early in the year with the Executive Committee of Blue Shield to discuss several items of mutual concern. Particular attention was given to our interest in the promulgation and administration of usual, customary and reasonable fee programs, and to the Society's position that services provided by non-participating physicians should be paid for on the same basis as those provided by participating physicians.

Medical Manpower has been one of our major concerns during the past several years. Although the Society's Task Force on Medical Manpower has found it difficult at times to come to grips with the many intangible aspects of this problem, it has made steady progress in its efforts to focus attention on the state's medical resources—both on the plus and the minus side—and to offer some constructive suggestions with respect to improving the situation in Iowa.

The report of the Task Force which appears in your HANDBOOK includes a special statement approved by the Executive Council for public release and distribution. I urge you to study it and to submit any comments or suggestions to the Task Force.

The Task Force, in cooperation with the College of Medicine and the Health Planning Council of Iowa, successfully completed a series of 16 area meetings on medical manpower last fall. The purpose of those sessions was to inform the membership about physician-distribution trends and related matters. As a follow-up, the Society, the College of Medicine and HPCI will sponsor another series of regional conferences next fall, at which time not only physicians, but other professional and community leaders as well, will be invited to discuss ways and means of assuring the continued provision of high-quality medical care to the citizens of their communities in a manner which best suits their particular needs.

Recently, members of the Task Force met with the Student/Faculty Committee of the University of Iowa College of Medicine to discuss plans for continuing a series of physician/student "bull sessions" that was instituted last year. The purpose of those small, informal "smokers" is to provide an opportunity for practicing physicians and medical students to discuss the many problems facing medicine today, the need for increasing the number of physicians in Iowa, the medical-practice opportunities in the state, the business side of the practice of medicine, *etc., ad infinitum!* We anticipate that these get-togethers—on both a formal and an informal basis—will be sponsored annually so that we can maintain a close liaison and establish a good rapport with these potential Iowa doctors.

CHAMPUS Program, which provides benefits for dependents of military-service personnel, continues to be operated in Iowa through the office of the Medical Society. The program is administered on the basis of usual and customary fees, and has been expanded to provide payment for more services to eligible recipients. It is interesting to note that in 1967 $360,450 was paid to the providers of care—primarily physicians—and that this amount increased to $560,135 in 1968.

Malpractice Insurance. The Society has received numerous inquiries from physicians seeking ways and means of obtaining relief from the ever-increasing costs of malpractice protection. Consequently the Board of Trustees has the matter under consideration,

and will either designate an *ad hoc* committee of the Board to conduct an in-depth study of the matter, or will suggest that the president designate a special committee to undertake this assignment.

Legislation. This year's is the first of the "annual" sessions of the Iowa Legislature. It has been heavy with health legislation, and your officers, members of the Legislative Committee, legal counsel and staff have been kept extremely busy in their efforts to promote passage of legislation that will best serve the interests of the profession and the public. We have had more successes than failures insofar as the Society's legislative program is concerned. Dr. John Kelley will go into more detail in a report to be presented to you later in the day.

Needless to say, these annual sessions will place increasing pressures on the resources of the Society, in terms of both manpower and money, but we anticipate no real problems in meeting our very important legislative obligations and responsibilities.

MD/DO Relations. The Board of Trustees has followed with keen interest developments in relations between M.D.'s and D.O.'s at all levels. Of particular significance has been the action of the AMA House of Delegates last December which was reviewed in some detail in the report of the Osteopathic Committee.

The reason why the Society's standing Committee on Articles of Incorporation and By-Laws was not called upon to draft amendments was that the Osteopathic Committee had not made any specific recommendations. It was our feeling that the Society should rely on its long-standing Osteopathic Committee to study the various proposals and alternatives in depth, and that it should have responsibility for presenting them to the House of Delegates. Its views will be presented to you today.

Drug-Abuse Education. As a result of suggestions emanating from the IMS, the Iowa Health Council has undertaken a public education program on the use and misuse of drugs. A listing of films, pamphlets, etc., on the subject of drug abuse has been provided to individual members of the organizations in the Iowa Health Council, in the hope that they will promote the use of these materials by local schools and civic organizations. Members of the IHC include the IMS, the Iowa Nurses Association, the Iowa Veterinary Medical Association, the Iowa Hospital Association, the Iowa Pharmaceutical Association, the Iowa Dental Association, and, more recently, the Iowa Society of Osteopathic Physicians and Surgeons and the Iowa Nursing Home Association.

Currently in the planning stages is a statewide conference on drug abuse, which will be held next fall for students, teachers, parents, clergymen and other interested individuals.

State of Health Care in Iowa. A major tangible product developed by the IMS last year was the 16-page newspaper supplement which appeared as a part of the November 24 edition of the DES MOINES SUNDAY REGISTER. Titled "State of Health Care in Iowa," the feature included reports on health manpower, health-care facilities, health-care costs, and health-care planning. Some 30 health-oriented groups shared in the sponsorship of the supplement, although the project itself was actually coordinated by one of our staff members, Mr. Don Neumann. An extra copy of the supplement is included in your packet.

Basic Science Board. On recommendation of the House of Delegates, a special *ad hoc* committee of the IMS met, for the first time, with members of the State Board of Basic Science Examiners to discuss matters of mutual interest and concern. The session was so successful and beneficial that there was unanimous agreement by the members of both groups that such joint conferences should be scheduled at least on an annual basis.

Health Planning. Several years ago the Society, recognizing the importance and need for health-planning programs, spearheaded the formation of the Health Planning Council of Iowa. HPCI is a voluntary organization involving providers of care, representatives of health-oriented organizations, and consumers. In addition to carrying out its own individual activities and projects, it serves in a most important capacity as a liaison between communities, areawide health-planning programs and agencies such as the State Office for Comprehensive Health Planning and the Iowa Regional Medical Program. The Society's official representative on the HPCI Board of Directors, Dr. Homer Skinner, of Carroll, has served as president of the organization since its inception. Dr. Skinner also serves on the Advisory Council to the State Office for Comprehensive Health Planning. The IMS is also ably represented on the Advisory Group to the Iowa Regional Medical Program by Dr. S. P. Leinbach, of Belmond, and Dr. Frank G. Ober, of Burlington. Through active participation on these health-planning bodies, medicine can provide guidance and leadership in the determination of health priorities and needs, and the development of action programs which will provide more and better health services to Iowans at the most reasonable cost possible.

Involvement With State Agencies. Having already mentioned the Society's participation in the Regional Medical Program and the State Comprehensive Advisory Group, it is also important for me to note that the IMS is also responsible for appointing—or recommending candidates for appointment—to other state agencies such as the State Board of Medical Examiners, the State Board of Health, the Title XIX Advisory Council and many other councils and committees connected with the State Department of Health and other branches of state government.

Your officers and staff also make every effort to keep the lines of communication open to—and from—the governor and other top state officials so that we may have opportunities to express medicine's attitude on legislative and other public issues relating to health care. Late in February, individual conferences were held with the governor, the lieutenant governor and the majority leaders of the Senate and the House for just this purpose.

Medicare and Medicaid. With respect to implementation of Medicare Part B, developments support the belief that increased governmental restrictions are inevitable. I refer to the recent SSA directives which, among other things, reduced the degree of flexibility previously allowed the carriers in updating prevailing charges. Under the new standards, revisions in the upper limit of the range of prevailing charges can be made only after a lapse of 18 months. This action obviously introduces an undesirable element of rigidity. That SSA action was reported to the IMS membership in two NEWS BULLETINS. The concern of the Society has been transmitted to the AMA, with a request that effort be exerted to determine the validity of this federal action.

In a more recent development, within the past 10

days there has been a public announcement of a federally proposed reduction in Medicaid and Medicare payments to hospitals and physicians. These HEW budget-cutting proposals have been suggested for implementation on July 1. On April 17 the IMS Executive Council voiced grave concern over this development and directed the officers to communicate its concern to the Department of Health, Education and Welfare via the American Medical Association. This action has been taken by the AMA, and a copy of the AMA letter to HEW was sent to the membership last Monday as part of an IMS NEWS BULLETIN.

The Society's State Claims Review Committee has done a tremendous job of evaluating those Medicare claims that have been referred to the Society. This peer professional review is recognized by the IMS as the most desirable means of controlling health-care costs.

As you know, the State Department of Social Services is the governmental agency in Iowa responsible for the conduct of the Medicaid program. Important personnel changes have occurred within the Department during the past year. For health reasons Dr. Otto Glesne retired in February from his position there, and he has been succeeded by Dr. Elmer Smith. And since returning to state-government work, Dr. Smith has been designated medical assistance program coordinator, with full responsibility for overseeing Title XIX. This formidable assignment has been given to one of our medical colleagues who has considerable experience and obvious capability.

Reference should be made to the recent curtailment in Title XIX. It became effective February 1. This action was announced as necessary in order for Title XIX funds to last the remainder of the biennium. Various reasons have been offered for the shortage of funds, not the least of which was a transfer of Title XIX moneys to several of the categorical programs. Increasing costs and utilization are other reasons that have been cited for the premature depletion of the appropriated funds. The Title XIX curtailment has taken the form of limiting hospitalization to 10 days and eliminating from participation those persons in the "medical only" classification.

It appears likely that the Title XIX appropriation for 1969-1970 will hold the line. This means that the limitations invoked February 1 will probably be continued. For a more comprehensive discussion of these Title XIX matters, let me refer you to the reports of the Subcommittee on Public Assistance.

Let me conclude these remarks on Medicaid by mentioning that the Society is now actively participating in efforts to strengthen the Title XIX Advisory Council. It is felt that this Council should be more extensively involved in matters pertaining to Medicaid, and steps are being taken to bring this about.

Other Items. I referred earlier to the State Claims Review and Public Assistance Committees. They are two committees within the Society's broad organizational structure. In all, the Society has nearly 50 committees. Many are quite active and have a variety of interests. For example, the Committee on Sports Medicine is engrossed in a project having to do with determining the ideal weights for wrestlers; the Committee on Psychiatric Care has recently renewed its lines of communication with the Mental Health Committee of the Iowa Chapter of the American Academy of General Practice; the Committee on Economics of Health Care has directed part of its attention this year to a unique proposal for the delivery of health care in Des Moines; the new Committee on Organ Transplantation has visited the renal-dialysis facilities in Iowa City.

I should also like to call your attention to a recently prepared—and updated—copy of the IMS Articles of Incorporation and By-Laws, which is included in your packet.

As I mentioned, these are only examples of the Society's many activities. For a more thorough review of its work, I urge you to read the HANDBOOK FOR THE HOUSE OF DELEGATES, and the several supplemental reports.

Annual Meeting. Dr. Seibert and the members of his 1969 Annual Meeting Program Committee should be commended for the excellent series of presentations they have arranged to present on two important—and perplexing—problems: "The Delivery of Medical Services to the Rural Community" and "Adult-Adolescent Hang-Ups." We hope all of you will not only take time to listen to those talks on Monday and Tuesday, but also will take advantage of your opportunities to comment and question during the discussion periods that are scheduled for both days.

Before concluding this part of the Supplemental Report of the Board of Trustees, I shall ask Dr. Wicks to bring you up to date on matters relating to Blue Shield, and he will then call upon Dr. Lister to review the Society's fiscal status.

BLUE SHIELD REPORT—SECTION II

Presented by Ralph L. Wicks, M.D., Trustee

(Referred to the Reference Committee on Blue Shield.)

This is my second opportunity to present the Blue Shield Section of the Board of Trustees' report. You may recall that in the 1968 Report the words *openness* and *cooperativeness* were used to characterize the relations between Blue Shield and the Iowa Medical Society. I am pleased to tell you that these words are again appropriate for the 1969 Report.

Although these annual summaries of Society-Blue Shield relations have developed symptoms of redundancy, the repetition is certainly positive and therapeutic. This is particularly obvious to those of us whose memories go back a few years to a time when the current spirit of cooperation was conspicuously absent. Naturally—and again I may be guilty of repeating myself—it is beneficial for us all that we have this harmonious relationship between official boards, committees, administrative staffs, etc. This kind of climate fortifies Blue Shield as it serves its subscribers, and it works to the advantage of the medical profession as it serves its patients.

Mind you, I am not suggesting that all of the problems have been resolved, or that there are no variances of opinion on certain issues. However I am declaring, and quite forthrightly, that the problem areas have diminished markedly, and that we do have open lines of communication for getting at those problems which remain, and those which may develop in the days ahead.

There have been several significant changes in the membership of the Blue Shield Board of Directors this past year. I remind you of the great loss sus-

tained by Iowa medicine on January 6, when George H. Scanlon, M.D., died. George Scanlon's wide involvement in the activities of medicine is well known. His service as chairman of the Blue Shield Board of Directors is particularly noteworthy among those activities. For eight years Dr. Scanlon provided strong and effective leadership as a member and as chairman of the Blue Shield Board of Directors.

A well-known and most capable Iowa physician was selected in February to succeed Dr. Scanlon. C. V. Edwards, Sr., M.D., of Council Bluffs, moved from president of Blue Shield to chairman of its Board of Directors. Elected to the Blue Shield presidency, filling the position previously held by Dr. Edwards, is yet another much-respected Iowa physician, S. P. Leinbach, M.D., of Belmond. And appropriately, the vacancy on the Board resulting from the death of Dr. Scanlon has been entrusted to Cecil W. Seibert, M.D., of Waterloo. It is worth noting, as evidence of the close ties between the Society and Blue Shield, that each of the men I have mentioned, except one, is a past-president of the Society, and the one exception will become a past-president in about three days.

It seems appropriate at this time to recognize another long-time servant of the Society, also a past-president. Ben T. Whitaker, M.D., of Boone, has just been reappointed to a three-year term as an IMS representative on the Board of Directors of Blue Cross.

The Blue Shield Board of Directors has a membership of 25. To these men has been entrusted the supervision of a major financial enterprise. The amount of subscriber income which Blue Shield receives is now right at 25 million dollars. Payment on physician claims follows a parallel line just beneath subscriber income. For 1968, payments to physicians amounted to nearly 22 million dollars.

The Blue Shield Board of Directors includes 18 men who are our professional colleagues. Eleven are physicians elected from geographical entities identical with the Society's councilor districts; the other seven are elected at large.

The point of the preceding two paragraphs is perhaps obvious. In 25 years Blue Shield has become a massive enterprise helping to support the health care needs of more than 885,000 Iowans. Its course has been chartered by a Board of Directors consisting mainly of physicians. The judgments and decisions of those physician Board members will determine the future of Blue Shield. This being the case, it should be the desire of this House of Delegates to assist, advise and counsel the Blue Shield Board to the fullest extent possible. We recognize that the Medical Society provided the seed from which Blue Shield has grown and flourished. And certainly we believe the Society should continue to play a substantial role in the evolution of the Iowa Blue Shield program. Because the Society does so believe, the Board of Trustees is grateful for, and anxious to maintain and enhance, the cooperative spirit which now exists. As you know, in recent years the Board of Trustees has constituted the principal link between the Society and Blue Shield, reporting of course to the Executive Council and/or the House of Delegates where policy is concerned.

For the record, let me now recap those actions of the 1968 House of Delegates which related to Blue Shield. You will recall that Blue Shield presented several contract modifications for consideration and approval last year. They included coverage for outpatient diagnostic and therapeutic services; extended-care-facility coverage for persons under 65; supplemental x-ray and laboratory services not covered in basic contracts; supplemental physical-therapy coverage; a program to provide vaccinations, immunizations and injections; and a master complementary contract for Medicare participants. It is understood that these Blue Shield coverages are now available, and although several of them may have only a limited appeal, they do exist for those who request them.

The precautionary words of last year's House of Delegates regarding those coverages have been relayed to Blue Shield, namely (1) the possibility of overutilization of diagnostic x-ray and laboratory services; (2) the importance of physician direction of physicial therapy; and (3) the need for identifying specific injections, etc. It is believed that Blue Shield has been mindful of those admonitions. It should be remembered that these programs are aimed at preventing overutilization of hospitals and at holding down the cost of care through the use of outpatient and private-office facilities for diagnosis and therapy.

On January 22, continuing its custom of holding periodic meetings with Blue Shield officials, the Board of Trustees conferred with the Executive Committee of the Blue Shield Board. Considerable attention was given to the new usual, customary and reasonable (UCR) concept, which is gaining momentum. This UCR approach was approved for experimental use by the 1968 House of Delegates. The House authorized its application initially in national accounts. The Federal Employees Program is a national account, and it is a Blue Shield-administered UCR program covering approximately 40,000 persons.

Under UCR the charges of *all* physicians are paid on the basis of usual, customary and reasonable fees. There is no differentiation between participating and non-participating physicians. Internal fee guidelines are established by Blue Shield on the basis of past charges submitted by physicians. These guidelines reportedly provide for the payment of approximately 98 per cent of the claims as submitted. In addition to the internal establishment of fee guidelines, external claims review is called into service to resolve questions which deserve peer consideration.

The UCR concept eliminates the disparity between payments to participating and non-participating physicians. Such a disparity is possible now, for example, in the Blue Shield Comprehensive Program. In the growing Comprehensive Program, which succeeded Blue Chip, the usual and customary philosophy is present, but it is applied in a manner slightly different from UCR. Under Comprehensive, the participating physician receives his full usual and customary fee. Blue Shield retains an element of control, however, in the form of the participating agreement. In other words, the doctor whose charges exceed Blue Shield's determined ability to pay is discouraged from continuing as a participating physician. In the case of the non-participating physician, payment of comprehensive benefits is made to the patient on the basis of $5 per unit. This arrangement, understandably precipitates some friction and some misunderstandings among Blue Shield subscribers who find their Comprehensive contracts falling short of expectations. This occurs when service is rendered by a non-participating physician whose charges exceed the $5-per-

unit allowance. In this event the patient is required to pay the difference.

This entire subject area—involving UCR and Comprehensive coverages—is a complex one deserving careful study. The Board of Trustees has spent several sessions discussing it. While brief, the experience with UCR in Iowa has been good. It is recognized, too, that nationally the UCR concept has already gained wide acceptance. UCR programs are being sought by various major groups, and they are being supplied by several private insurers. In other words, there is an active market for UCR.

UCR does have much to commend itself. It eliminates the discrimination between participating and non-participating physicians—a move previously endorsed by this House of Delegates. It pays usual, customary and reasonable fees for the services of *all* physicians. It allows for use of the county and state peer-review process. It logically requires the physician whose charges exceed determined reasonable levels to arrange separate payment agreements with his patients in advance of providing them service. And finally, the UCR approach has received the approval of the Iowa Insurance Commissioner.

For these reasons, the Board of Trustees recommends that the 1969 House of Delegates approve broadened implementation of the UCR coverage, so that Blue Shield may offer it both in intrastate and in national business.

The Board of Trustees continues to support the Blue Shield Comprehensive coverage, and is pleased at the way in which it has flourished. The Board acknowledges that UCR represents a deterrent to the further growth of Comprehensive, and is willing to accept that effect. It is felt that the availability of both programs will serve as a double stimulus to reduce further the numbers of low-level contracts that still exist. This trend is already very apparent. In only one year, UCR covered about 40,000 Iowans through national accounts, and at the end of 1968 slightly more than 116,000 persons were covered in the Comprehensive program. By contrast, the Series 450, 400 and 300 contracts have declined since 1965, and the Series 250 is all but extinct. These figures represent a favorable response to the urgings of the House of Delegates that the low-level contracts be phased out.

Mention deserves to be made in this report of the recent efforts by Blue Shield to improve its efficiency and service capability. We are aware of at least three programs in this area, and they are worthy of brief comment. The new Quality Assurance Program is one. The expanded, year-old Field Service Program is another. And the Physician Service Center is the third.

The Quality Assurance Program, instituted during the past year, seeks to promote the efficient use of health-care services and the prudent use of health dollars. Dr. Sunderbruch alluded to it in his discussion of Medicare. QAP was developed by Blue Shield for initial application in the Medicare Part B claims-processing program. But it was also intended for use with regular Blue Shield business, and it is devised in such a manner that with proper authority it can be applied to Title XIX.

QAP comprises four distinct operations: (1) educational literature distribution, (2) pre-payment claims review, (3) post-payment statistical evaluation, and (4) random sampling techniques. The first phase is easily comprehended; it provides for the distribution of information to beneficiaries, subscribers and providers of service. The second component of QAP is pre-payment claim review. In this evaluation all claims are carefully examined. Those which deviate from internally-established screening levels are identified. They go to the Quality Assurance Department for further analysis. At this point additional information is requested and assembled, so that a valid disposition of the claim can be made by the medical director. On the basis of this thorough assessment, the claim is either paid entirely, paid partially or disallowed entirely. It should be pointed out that provisions do exist for contact and consultation with claims-review committees. This element of the Quality Assurance Program attempts to make sure that all claims receive systematic and in-depth review.

The third phase of QAP is post-payment statistical evaluation. It concerns the general effective use of health-care services. With extensive computer data, the Quality Assurance Department is able to analyze utilization trends. Variations in care patterns and their apparent causes can be evaluated—e.g., place of treatment, type of specialty practice, type of service, etc. The findings can be compared and used, for example, in establishing or correcting payment levels. The goal here is one of determining, insofar as possible, how effectively health-care services in Iowa are being utilized.

The final phase of QAP has to do with sampling and auditing. By means of a random sampling technique, both internal and external aspects of the Quality Assurance Program can be measured as to their effectiveness and accuracy. A sampling of claims is analyzed on a step-by-step basis from point of entry until final disposition. This phase, in a sense, is a check on the first three components.

It is hoped that this explanation of the Quality Assurance Program has given the House some impression of how Blue Shield is responding to the demand for increased efficiency in the delivery of health care. While the program has governmental overtones, it nonetheless represents an innovative approach.

The integrated IMS-Blue Shield Field Service Program is nearly one year old. I am pleased to report that from all indications it is functioning effectively. The program is coordinated and directed by Mr. Eldon Huston, who has undertaken this task as part of his overall responsibility as assistant executive vice-president of the Society. As you will recall, this joint program allows for the six field men—four from Blue Shield and two from the IMS—to remain as employees of their respective organizations. Each of the men, however, has been authorized to act for the counterpart organization in serving the physicians in his area. In particular, the field men are providing increased assistance to physicians who serve in elective capacities. As an example of their activity, the field men are now arranging a series of informational meetings for doctors' assistants.

I should like to take a moment to introduce the IMS-Blue Shield field men. I shall ask them to stand as I mention their names: Mr. Ged Buckles, who serves Councilor Districts 8 and 9 in the southeast part of the state; Mr. Virgil Deering, who serves Councilor District 5 in central Iowa; Mr. Merle Libby,

who serves Councilor Districts 10 and 11 in the southwest part of the state; Mr. John Larson, who serves Councilor Districts 1 and 7 in northern and eastern Iowa; Mr. Ed Beacom, who serves Councilor Districts 3 and 4 in northwest Iowa; and Mr. Dean Jacobs, who serves Councilor Districts 2 and 6 in the northern and central parts of the state.

The Physician Services Center, after a period of organization, is now a fully-operating department within Blue Shield. Inquiries from physicians are channeled to this department, and are handled by trained personnel as expeditiously as possible. The Services Center has an extensive Physicians' Reference Manual in the final stages of preparation. This manual will contain material on the various programs that operate under Blue Shield's roof. It has been compiled in a looseleaf form so that it can be maximally flexible. It will be distributed in the near future.

Here, then, are three relatively new ways in which Blue Shield is attempting efficiently and equitably to serve its subscribers and the participants in the governmental programs it administers, as well as the providers of service.

The 1968 House of Delegates requested the officers of the Society to follow closely the deliberations relating to further changes in the membership standards of the National Association of Blue Shield Plans. Over the past two years the Society has spent considerable time and effort trying to make sure that the NABSP By-Laws contained satisfactory provisions requiring approval of each Blue Shield Plan by a medical society.

You may recall the circumstances. In brief, they are these. In late 1967 changes in the NABSP By-Laws were made unbeknownst to the IMS. Those changes eliminated the need for a Blue Shield Plan to have the sponsorship of a medical society. IMS concern over this development prompted its sponsorship of a resolution at the 1967 interim meeting of the AMA. That resolution, calling for re-study, was adopted. Added to it was a provision for the appointment of a joint AMA-NABSP committee to examine and revise National Blue Shield membership standards and to help adjudicate local problems. That committee reported at the 1968 NABSP annual business meeting, but no specific action was taken on its report. The concern of the IMS over the lack of action was transmitted to the appropriate persons after that meeting.

The subject found its way to the agenda of the 1969 NABSP business meeting, which took place earlier this month. Prior to that meeting, the IMS officers took special pains to make sure that all the principals were totally aware of the history of the matter. Arrangements were made to have IMS representatives present at the 1969 NABSP business meeting.

Up for consideration and approval at that business meeting was the following revision in NABSP Membership Standards: "Section 1. Plan Approval. A Plan shall have substantial support of the medical profession, evidence of which shall be approval of the Plan by the appropriate medical society or societies."

The Iowa Medical Society strongly supported that language. However it was determined that in addition to the possible approval of this Section, modification of the Standards would be sought which would give the NABSP Board of Directors "the right to waive any membership standard wherever, in its judgment, circumstances may warrant such action."

I shall end this complex and intriguing story on a happy note by reporting that the extensive efforts of the Iowa Medical Society have been successful. Section 1, as previously read, was approved, and the proposal to entrust to the Board of Directors the right to waive any of the membership standards was deleted. Representatives of the IMS and of Iowa Blue Shield who have been involved in this exhaustive effort deserve to be commended.

From the length of this report one can readily see just how extensive the Blue Shield program is. I shall allow the references of Dr. Sunderbruch to the Medicare and Medicaid programs to suffice, even though it is a responsibility of Blue Shield to assist in the administration of those programs. That fact is well known.

Before completing this report I should acknowledge the good job which is being done by Mr. William Recknor as executive director of Blue Shield. Bill is now about to complete his second year in that position, after having served for approximately six months as acting executive director.

Finally, I have a suggestion that the House may wish to endorse. Blue Shield is attempting to do an important job in the health-care field for the people of Iowa. To do that job with any degree of success, it obviously must have the support and encouragement of Iowa's physicians. And if there is to be physician support, there must first be physician understanding. I invite the House to consider urging the constituent county societies of the IMS to schedule one county meeting each, in 1969 or 1970, at which the Blue Shield program may be examined in some depth. I am informed that such a program—with visual aids—is available and will be gladly provided to any county society that requests it. Requests for a program of this nature should be directed to the IMS-Blue Shield Field Service Department. I am confident the field staff will be happy to handle the arrangements for such a program. Thank you.

It is now my pleasure to present Dr. Lister, who will report to you on the financial condition of the Society.

FINANCES—SECTION 111

Presented by Kenneth E. Lister, M.D., Trustee

(Referred to the Reference Committee on Reports of Officers.)

Last year the Board of Trustees submitted to the House of Delegates several options as to the directions which the Iowa Medical Society could take relating to its future financial obligations. The House of Delegates adopted a Reference Committee report directing the IMS to continue and, where necessary and feasible, to expand its scope of interest and activity, in the belief that it was essential for the IMS to continue to assume active leadership in guiding and implementing programs involving all aspects of health care. The House, therefore, increased the dues $25 effective January 1, 1969, left the accelerated payoff schedule on the building unchanged, and recommended continued ownership of the property adjacent to the headquarters building unless, in the judgment of the Board of Trustees, it would be advantageous to dispose of it.

The financial statements reprinted in the HANDBOOK set forth the 1968 income and expenditures, as well

as the total financial structure of the Medical Society as of December 31, 1968. The expenses for 1968 exceeded income by $17,233.75. That was almost precisely the amount of expenses budgeted, and represented only a $2,000 increase over the 1967 expenses. Unfortunately, income—specifically income from dues —decreased by more than $3,000 in 1968. If you refer to the Secretary's Report you will note that approximately 150 eligible physicians did not choose to pay dues in 1968. Had those physicians paid dues, the Society would have experienced an excess of income over expenses for 1968.

The matter of non-dues-paying physicians is of continuing concern to the Board, especially in view of the fact that actions taken by the Society are in the interest of the entire physician population of Iowa, regardless of membership in the State Society. We recommend that responsible officials of county societies as well as of the State Society take whatever steps seem necessary to persuade all physicians to become active dues-paying members of their state organization.

As has been reported to the House in previous years, six budget items comprise approximately 80 per cent of the total operating expenses of the Society. Those items are listed below, including the percentage that each item represents of the total expenses:

Salaries—31 per cent
Building Interest and Principal—13 per cent
Committee Work—12 per cent
Travel—Officer and Employee—12 per cent
JOURNAL (net) 6 per cent
Taxes—6 per cent

As directed by the House, the Society has continued its accelerated amortization of the building, and as of this date the mortgage balance has been reduced to slightly more than $100,000.

Looking to the future, the Board has not been able to analyze fully the total effect that annual sessions of the Iowa General Assembly will have on the Society's expenses. Referring to the supplemental report of the Committee on Legislation, one finds it readily apparent that a great amount of time, effort and money is devoted to assuring physicians and the public that legislation is fully reviewed, and that a total effort is made to make certain that items which are finally written into law are in the best interest of the citizens of Iowa. The Board of Trustees will continue to examine carefully its expenses for legislative efforts.

One other area of concern, over recent years, has been the fiscal picture of the JOURNAL. The JOURNAL financial picture has not changed, but continuing efforts are being made to reduce expenses wherever possible, while still assuring a fine medical publication. Through contacts with other states, programs are being explored to consolidate printing and other costs, where possible, to keep the total expenditures to a minimum.

Needless to say, the officers of the Society are aware of, and very much concerned about, the decreasing interest in annual meetings, as evidenced by the slow but steady decrease in attendance. Every attempt has been made to stimulate greater participation by more of our members, but the pressures of practice and competition for the physicians' time have thwarted our efforts.

The Board has given considerable thought to this matter, and one idea that might merit further consideration is that of joining with appropriate surrounding state medical societies in conducting annual scientific sessions, apart from any business meetings, with "host" responsibilities being rotated among the participating organizations. In such meetings, physicians could devote strict attention to scientific matters, and share ideas and experiences with colleagues from other states. Also, through a sharing of expenses among the participating medical societies, financial restrictions with respect to the development of programs and selection of participants could practically be eliminated.

In order to provide an opportunity for the development of a specific proposal, it is respectfully recommended that the House of Delegates authorize the Board of Trustees to do the following: Explore with appropriate officials and staffs of neighboring state medical societies the desirability and feasibility of combining our scientific meetings on an "alternate host" basis. Details relating to the appointment of a joint program committee, selection of meeting sites and dates, designation of "program coordinators," funding, exhibits, etc. would be considered in any discussions with representatives of other state medical societies.

Even though there might be a "combined" scientific meeting, it is understood that each participating state medical society would, of course, continue to schedule and arrange its own House of Delegates sessions. If the House of Delegates reacts favorably to this recommendation, the Board of Trustees will initiate its study immediately, so that it will be prepared to present a full report and specific recommendations either to the Executive Council or to the House of Delegates, depending on the timing.

The budget established by the Board for 1969 reflects a net income in excess of expenses. Continued diligence on the part of the Board to assure that expenditures are in the best interest of the physicians will be a prime goal of the Board of Trustees. The Board recommends no change in the State Society dues structure for 1970.

I am pleased to end this portion of the Board's report on such a happy note, and now Dr. Sunderbruch will offer some closing remarks.

(Resumption of the report by Dr. Sunderbruch)

This concludes the annual accounting to you from the Board of Trustees. Although it is interesting to see where we have been, it is more important that attention should now be given to where we are going. After receiving the numerous reports and recommendations from committees of the Society and from your officers, and after considering the resolutions submitted from the "grass roots," this House of Delegates will take the important actions that will chart our course for the coming year. The Board of Trustees is hopeful that the House will continue to support—actually, to demand—an active medical society deserving of the respect of other professional groups and of the public, as the leader in providing and planning for the health care of the people of Iowa.

As chairman of the Board, Dr. Sunderbruch then presented a check in the amount of $12,837.09 to Dr. Robert Hardin, dean of the U. of I. College of Medicine, on behalf of the American Medical Association Education and Research Foundation. Dr. Hardin then spoke briefly acknowledging the gift.

DR. ROBERT HARDIN

Thank you, Dr. Sunderbruch. Ladies and Gentlemen: As I have said before, this money that comes from our profession and its friends—you did leave out one important group, the professional men's wives, because I know more and more, as the list of contributors comes to me, that there are checks from county Woman's Auxiliaries—this money, of course, is used in various ways and is mainly used in the support of students.

If I may, I should like to take a few minutes to discuss two problems that we have together at the present time. The newspapers these days are full of accounts of student unrest, and the commonest greeting among university administrators now is "Have you had a riot?" It is commonly thought that riots will not occur in medical schools, but there have been such riots—not yet in this country, but there has been one in a medical school in Canada.

It is true, I think, that in medical schools we find very few of the sorts of students that may inhabit other parts of the campus—or the hangers-on, the non-students who are on the campus, although they are not enrolled.

However, as we all saw demonstrated last week, a confrontation got to the point where the Harvard authorities called in the police, and we saw a riot which involved other students who, although they may not have agreed with the smaller group, did not wish anyone to be harassed by the police. So, we have a very touchy problem.

What I am saying is, "It can happen in medical schools." There is some unrest among students in medical schools now. It seemed to be centered in a few universities. But about three months ago, a meeting of the Council of Deans of the American Association of Medical Colleges, in Chicago, was broken up by a group of medical students from the University of Illinois and the University of Chicago. These are two schools which have this problem. The other medical schools in Chicago do not seem to have any problem.

The medical school at Kansas University, in Kansas City, is another tinderbox. Stanford—some of you know about Stanford. You may have had some experience with one of their students last year at the meeting of the House of Delegates of the AMA—the Harvard students, the Western Reserve students—medical students I am talking about now—and the students at Einstein also seem to be involved.

The organization of students which seems to promote this attitude is called the Student Health Organization or S.H.O. It started out to be a good organization, but it has been perverted.

The organization which seems to be taking the best stand among students is SAMA, the Student American Medical Association. This organization has some very idealistic young men for its national officers. They are going to change things when they get to run the AMA, let's say, twenty years from now. It is going to be different, but they are going to change it through the normal legal channels. They are talking to the AMA now. They talk to the state medical societies; they talk to deans. They come to the deans' meetings, and we actually have them on our program. These are good, solid young men who are leading the majority of the medical students in the United States.

It has been said, and truly, that 40 per cent of medical students in the United States come from families in the upper 10 per cent economic bracket. This is not true in our state. Twelve and one-half per cent of our students come from families with less than $6,000 annual income; 35 per cent of our students come from families with less than $10,000 income, and only 12 per cent come from families with incomes of more than $25,000.

Furthermore, our students come mainly from Iowa and, about 25 per cent of them come from towns of less than 500 population or from farms.

We have opened up many lines of communication with our students. They are very socially aware. They are very worried about what is going on in the world. They want to do something to change it—to help it. We find that students divide rather naturally into several groups. There is a group which is interested in research. They will be teachers in the future, probably. So we have a Student Research Club which meets regularly. A chapter of the American Federation for Research has been organized. It is the only student chapter of its kind in the country. It holds a midwestern research conference each year, to which students from other midwestern medical schools are invited. Interested faculty members work with this group.

Another group of our students are interested in medical education and medical health care delivery. So we have made them members of some of the committees in the College of Medicine dealing with curriculum and education. We even have three students on the Admissions Committee now. We meet, then, regularly with this group.

We have another group which is interested in reaching out and doing something in the community, and studying community problems, and we meet weekly with this group. They have a program, as some of you know, with the migrant farm workers in the Muscatine area, and they are planning to expand this program in the next year. These students work closely with the county medical society and with the profession in Muscatine. We are also going to do some of this kind of work with students in Cedar Rapids, and their work will be done in close cooperation with the county medical society there.

Then we have some students that just want to go to school, and that is all right, too.

What I am trying to say is that we are making an effort to stay in communication with the students and to help them understand the problems that we face. And we believe that if we do this, we won't have any problems of the kind that you read about in the papers.

Now part of this communication process, I am happy to say, is being borne by members of the Iowa Medical Society. And it is very successful. The General Practice Academy has started regular seminar meetings with our students. The more we can get of communication between the practicing profession and the student body, the better off we are going to be.

We will do a lot of things such as recruiting physicians for Iowa, but you also help us in relating the social problems to the students so that they don't get carried away by some of these far-left organizations.

I must say one other thing. I note there are some resolutions centered around this particular problem, and I shall say here and in the reference committee that I hope these will be seriously considered.

Now to turn to another problem. As you know, we have been trying to build some buildings, and we are well along with our program. We bid the basic science building last week. Dr. Lister was talking about the cost of building. I will say at this point the bids that came in were at $800,000 over the latest estimate, and it seems that the construction prices in Chicago have now apparently moved to Iowa, for it is going to cost us as much to build the building in Iowa City as it would in Chicago.

On completion of the basic science building and some others, but this one in particular, we shall increase our entering class to 160. We have 130 freshmen this year. We expect to keep the freshman class at that level until we get the new building.

If we can get them, from two-year schools, we have agreed to take enough students at the junior level to raise our junior class to 135. So we are going to admit 130 freshman students, we hope, and we hope we can start graduating 135.

Another problem that we are all facing is the business of family care. As I said in my letter to you published in the April JOURNAL, I am happy that the problem of establishing a specialty board for family practice has been met and solved. Immediately, we and many other medical schools, I might say, began examining what our role should be in this new area.

We shall start implementing a new curriculum next September which will have as one of its features a fourth year—the senior year—which, will be completely elective, and one of the options will be family practice. We are not sure that we can do all the teaching in that specialty within the confines of the medical school, and we shall be talking to you about the program, and perhaps making arrangements to have you help us in community hospitals.

I think, also, that we should be working together toward the establishment of some general-practice residencies throughout the state, designed to meet the requirements of the new specialty board. I think this should not be centered in one place, for I believe that if we can get the students in the general practice residencies out in various communities, we are going to enhance our recruitment of physicians for the state.

Well, again, we not only appreciate your financial support but we appreciate your support in the Legislature, with the public, with our students and all other ways in which you help us. I think that we as a Medical School are most fortunate in our relationships with the Iowa Medical Society. The relationships between some medical schools and some medical societies are not very good, but this has never happened here, and I don't think it ever will.

Thank you very much.

INFORMATIONAL REPORT ON THE SCANLON MEDICAL FOUNDATION/IOWA MEDICAL SOCIETY

Kenneth E. Lister, M.D.
President, Scanlon Medical Foundation/Iowa Medical Society

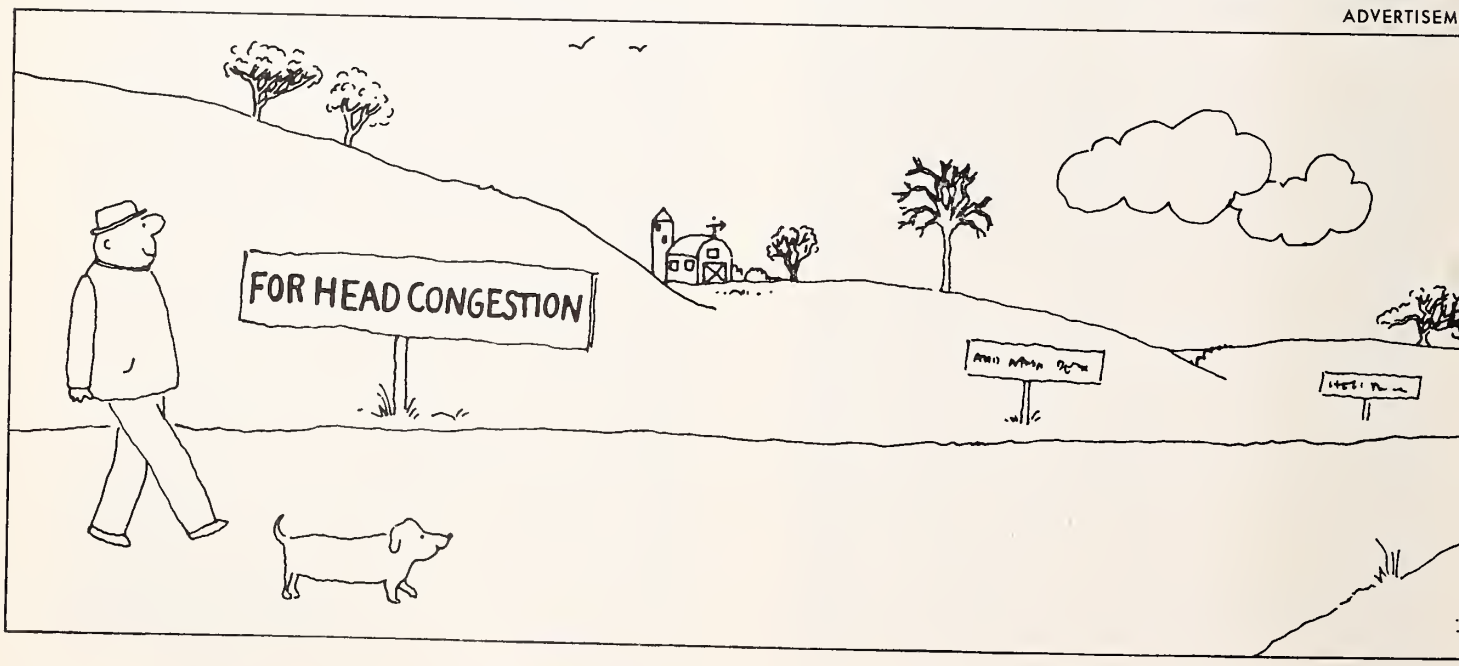
I am privileged this morning to report on a program of which the medical profession can be most proud. The organization which carries this program forward has been in existence for 17 years. During that period we have known it by three different names. From 1952 until 1963, it was known as the Iowa State Medical Society Educational Loan Fund, Inc. From 1963 until last November, it was the Iowa Medical Foundation.

In action taken November 7, 1968, it became the Scanlon Medical Foundation/Iowa Medical Society. The Foundation's Board of Directors selected its new corporate name at that time by unanimous ballot.

It is unnecessary to point out that this action was taken to recognize and honor George H. Scanlon, M.D. Dr. Scanlon's interest brought the Foundation into existence and it was his continuing effort which caused it to grow. The passing of Dr. Scanlon in January created a substantial void in the Iowa medical profession, and this void is particularly felt in the program of the Foundation. It should be a challenge to those of us who carry on to keep the Foundation moving forward as George Scanlon did.

By way of review, the Scanlon Medical Foundation/Iowa Medical Society is a non-profit corporation established, as set forth in its Articles of Incorpo-

ADVERTISEM



ration, to engage in, assist, further, promote and contribute to the support of such charitable, educational and scientific activities and projects as are, in general, either directly or indirectly, related to health or medicine.

The Foundation Board of Directors consists of nine individuals. Included are the three trustees of the Iowa Medical Society, the two most recent past-presidents of the Society, one physician at large, the executive vice-president of the Society and two interested lay persons.

I am pleased to announce to the House of Delegates the names of two new members of the Board of Directors. Both were elected at a special meeting on February 19. Lewis H. Jacques, M.D., of Iowa City, has been elected to fill the physician-at-large spot on the Board held by Dr. Scanlon. I should add that Dr. Jacques has assisted the Foundation since last fall by interviewing medical student applicants for Foundation loans. We are grateful to Dr. Jacques for his service in this manner, and we are pleased to have him serve as a member of the Board.

Mr. E. Howard Hill, of Minburn, is the other new member of the Foundation Board. Mr. Hill is a well known Iowa businessman. He is chairman of the board of ID Packing, Inc. Among his many activities, Mr. Hill serves as a member of the Blue Shield Board of Directors.

The Board of Directors of the Foundation will hold its Annual Meeting at the Hotel Fort Des Moines tomorrow afternoon, and at that time, it is anticipated one additional person will be elected to membership.

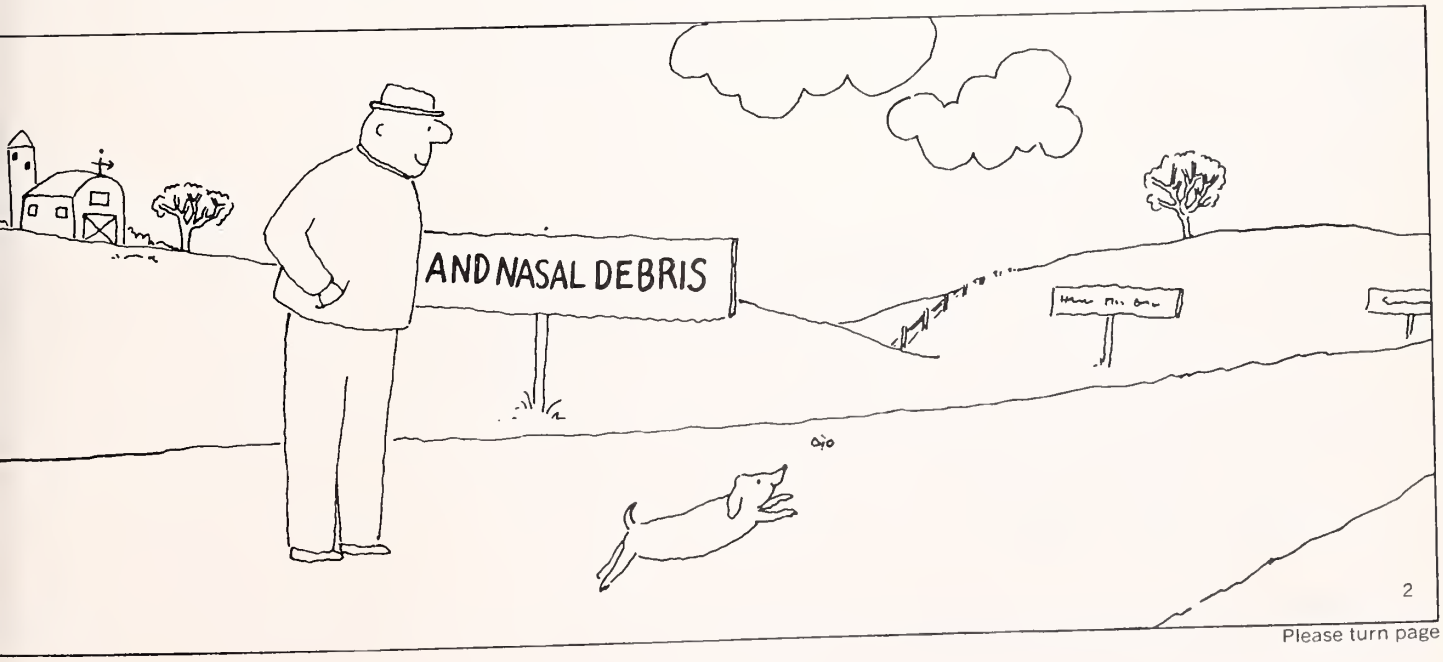
I am pleased to report that the affairs of the Foundation are in good order. In calendar year 1968, Foundation income exceeded $16,000. This compares favorably with recent years. As the Foundation increases in familiarity to the medical profession and to others, we feel confident it will demonstrate an even greater annual growth. We call on you, the members of the House of Delegates, to help the Foundation obtain greater exposure.

The Board of Directors has attempted, with some success to encourage financial support from county medical societies on a regular or occasional basis. I should like to recognize the Webster County Medical Society and the Union Taylor County Medical Society for their support of the Foundation this past year. We invite all county societies to consider giving or entrusting surplus funds to the Foundation.

Now in its seventeenth year of activity, the Foundation has surpassed $336,000 in the amount of money lent to Iowans attending medical school. As you will note in the accompanying summary, the Foundation has made loans to 230 medical students. Of those loans, 117 have been repaid in full. The amount of money repaid as of April 5, 1969 totalled $173,289, leaving an outstanding balance in the loan fund of $163,418.

The Foundation Board believes the loan program has influenced some recipients to locate and practice in Iowa. An informal study made a year ago showed that about half of the Foundation loan recipients reside in the state. You may recall that the Foundation last year added a new dimension to its loan program. This has as its objective the securing of more physicians for Iowa. Under this new program the Foundation is empowered to make loans of up to $2,000 to sophomore medical students who will agree to engage in general practice in Iowa for at least three years. The loans are renewable for their junior and senior years. There are currently 11 medical students with Foundation loans, and according to information provided by the Iowa City administrator of the loan program, nine of these students have the general practice loans.

The new Foundation GP loan program is intended, at least in some instances, to supplement the state's medical-osteopathic tuition-loan program. As this report is prepared, the 1969 Iowa General Assembly is giving favorable consideration to an appropriation which will allow the state program to continue. You will recall that the 1967 Legislature appropriated $200,000 to provide forgivable tuition loans for medical and osteopathic students who would agree to practice in the state. Our information is that some 60 osteopathic students are in this state program, along with approximately half that number of participants from the U. of I. College of Medicine.



Please turn page

We are pleased to have with us this morning a representative of the outstanding young men and women now enrolled in the University of Iowa College of Medicine. It has been our custom to have medical student representatives present at this session and to recognize them. The medical student here today is a junior from Des Moines, and is a participant in the Scanlon Medical Foundation loan program. May I present to the House of Delegates at this time Mr. Jerald King.

[Mr. King expressed his own gratitude and that of 10 other recipients of Scanlon Medical Foundation loans. Dr. Lister then resumed speaking.]

I shall allude only briefly to some other of the new or continuing activities of the Foundation. These activities include: (1) participation as a co-sponsor in the recent eleventh annual Hawkeye Science Fair; (2) participation in the 1969 IMS Annual Meeting as sponsor of The Baldridge-Beye Memorial Lecture to be presented Tuesday at 2:15 p.m.; (3) participation as an exhibitor at the annual "Hall of Health" public education project at the Iowa State Fair; (4) participation as a co-sponsor of the newspaper supplement "State of Health Care in Iowa"; (5) participation in support of the program of the Health Planning Council of Iowa, and (6) participation, in part through the generosity of The Prouty Company, of Des Moines, in the educational program of the Iowa Chapter of the Student American Medical Association.

SCANLON MEDICAL FOUNDATION/
IOWA MEDICAL SOCIETY

Summary of Student Loan Program

Total loans entered into since inception of program	$336,707.52
Loans repaid	173,289.16
Loans outstanding as of April 5, 1969	163,418.36
Number of students who have participated	230
Number of loans paid in full	117
Number of loans outstanding	113

SCANLON MEDICAL FOUNDATION/
IOWA MEDICAL SOCIETY

BALANCE SHEET—DECEMBER 31, 1968

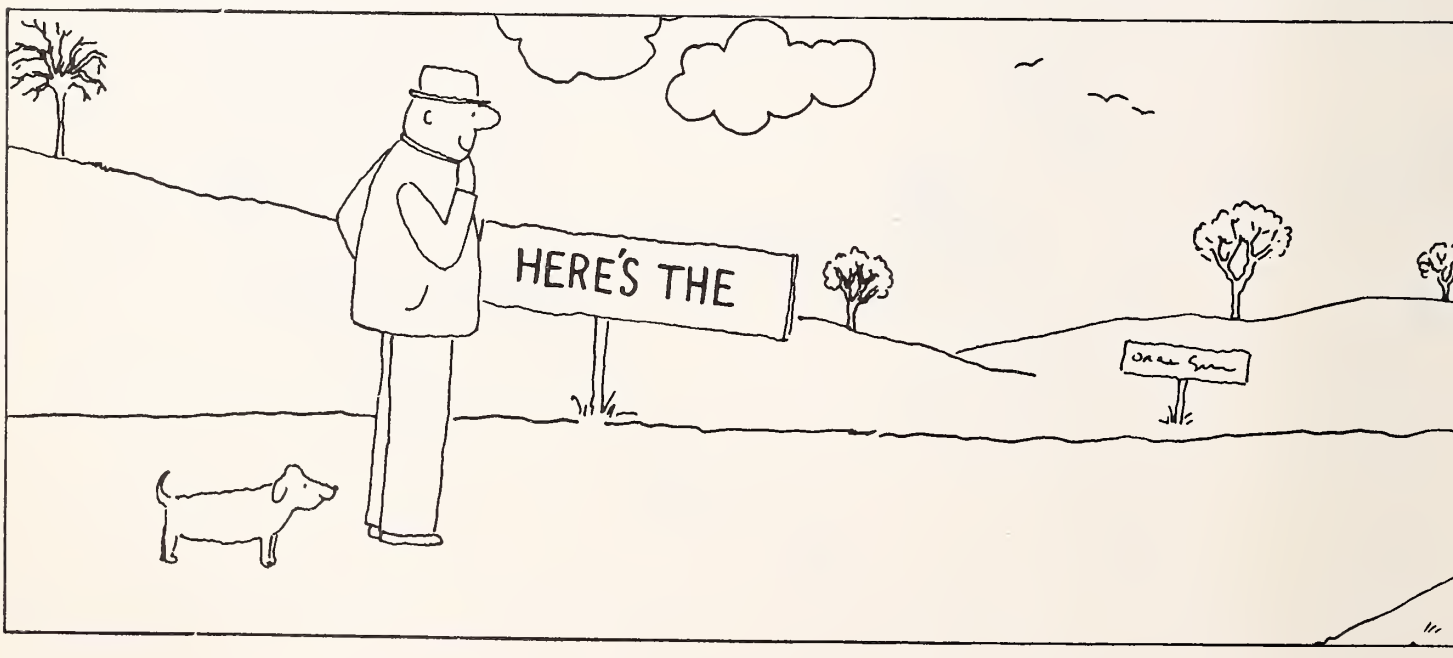
ASSETS:		
Central National Bank & Trust Company	$ 10,407.49	
Iowa State Bank & Trust Company	2,704.22	
Treasury Bills	32,517.21	
Notes Receivable from Medical Students	160,815.36	
Student Nurse Loan Fund	3,701.63	
100 Shares of American Scientific Corp.	60.00	
		$210,205.91
LIABILITIES AND NET WORTH:		
Notes Payable to Physicians		$ 46,255.84
Note Payable to IMS		1,000.00
Net Worth:		
Balance 1-1-68	$157,345.43	
Add 1968 Gain	5,604.64	$162,950.07
Total Liabilities and Net Worth		$210,205.91

SCANLON MEDICAL FOUNDATION/
IOWA MEDICAL SOCIETY

Income and Expense Statement—December 31, 1968

INCOME:			
Contributions and Memorials		$ 1,386.00	
Henry Albert Trust		8,000.00	
Interest on Loans		1,937.19	
Interest on Treasury Bills		905.55	
Special Gifts:			
Bandy Memorial Fund	$1,920.00		
George Braunlich, M.D.	1,000.00		
The Prouty Company	500.00		
Taylor County Medical Society	146.95		
Webster County Medical Society	250.00	$ 3,816.95	
			$ 16,045.69
EXPENSES:			
Administrative Expense (Iowa State Bank & Trust)		$ 300.00	
Bandy Memorial Fund		1,920.00	
Hawkeye Science Fair		3,000.00	
Health Planning Council of Iowa		550.00	
Interest Paid to Physicians		1,483.78	
Iowa Chapter, Student AMA (Prouty Grant)		500.00	
Baldridge-Beye Lecture (IMS Annual Meeting)		502.76	
IMS Annual Meeting Exhibit		160.93	
Iowa State Fair Exhibit		508.73	
Legal Services		175.00	
Office Supplies		44.55	
Salary Allotment		1,200.00	
Tax Return		50.00	
Travel and Meeting Expense		45.30	
			$ 10,441.05
Net Gain for 1968			$ 5,604.64

At the outset of this report, reference was made to the change in the name of the Foundation. As mentioned, that action was taken to honor the man who made this annual report for most, if not all of the past 17 years. To give you some small impression of the esteem in which Dr. Scanlon was held by his col-



leagues, may I mention to you that very nearly $10,000 has been contributed to the Foundation in his memory.

Dr. Scanlon's long and personal interest in the Foundation needs no recounting. Without his dogged persistence and persuasive powers, the Scanlon Medical Foundation obviously would not have assets amounting to more than $200,000, nor would it have helped 230 Iowans become doctors. The Foundation does indeed stand as a dynamic and tangible testimony to the man who inspired its creation and guided its development.

Dr. Scanlon received a full measure of support in all of his various activities from his most personable wife. And through her energies, many of his endeavors will continue. We are pleased to have Mrs. Scanlon here this morning to greet you and to comment briefly on the work of the Foundation from her vantage point. I shall conclude my remarks by presenting to the House of Delegates, at this time, Mrs. George Scanlon.

MRS. GEORGE H. SCANLON

Mr. Speaker, members of the House of Delegates and guests: Dr. Lister, you have asked me to make some comments on the work of the Medical Foundation but that isn't necessary because you have already covered those points. I am sure you are all aware of the magnitude and the future value of this program as it is to be carried out by the Board of Directors of the Foundation.

I wish to take this opportunity to thank George's many friends for the numerous letters, cards and notes that were sent to him during his illness, and also my family wishes to thank the many members of the group and all his other friends for their contributions to the Foundation.

It was my husband's wish that our family Foundation should make a contribution this year to the Medical Foundation/Iowa Medical Society, and to contribute like sums during the remaining nine years.

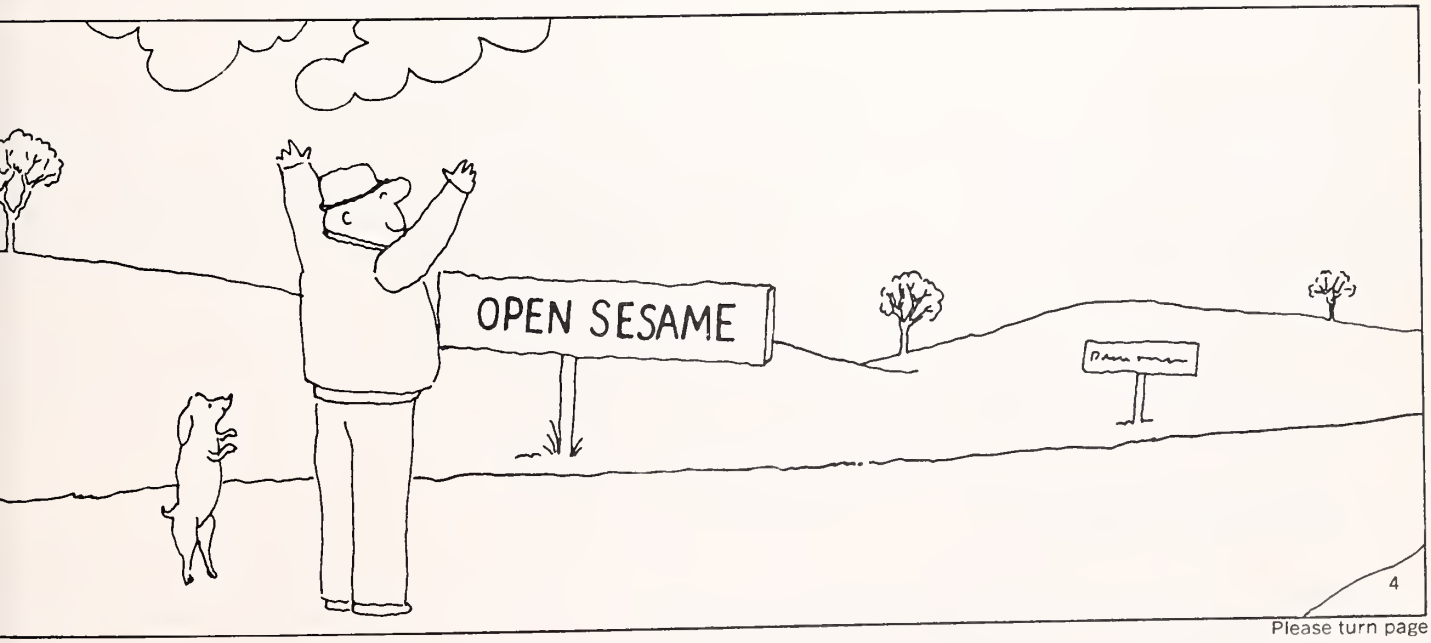
Therefore, I should like to present to the George Scanlon Foundation/Iowa Medical Society from the George H. Scanlon Foundation, which is a family Foundation, this check for $2,500. It is hoped that we can continue this contribution for ten years, thus bringing the total to $25,000. We hope that by giving this check we will stimulate similar gifts from individuals and from county societies to carry forward the work of the Scanlon Medical Foundation.

Supplemental Reports of Standing Committees

NOMINATING COMMITTEE

The Nominating Committee of the Iowa Medical Society met on Sunday, March 30, and agreed upon the following slate to be presented to the House of Delegates today.

President-Elect	J. H. Sunderbruch, M.D., Davenport
Vice President	R. W. Boulden, M.D., Lenox A. J. Havlik, M.D., Tama
Secretary (3 year term)	V. L. Schlaser, M.D., Des Moines
Treasurer (3 year term)	T. A. Burcham, M.D., Des Moines
Speaker of the House of Delegates	L. D. Caraway, M.D., Monticello
Vice Speaker of the House of Delegates	C. J. Smith, M.D., Gilmore City R. E. Hines, M.D., Des Moines
Trustee (3 year term)	J. F. Paulson, M.D., Mason City P. J. Leehey, M.D., Independence
Delegate to AMA (2 year term)	E. M. Smith, M.D., Des Moines
Alternate Delegates to AMA (2 year term)	C. E. Radcliffe, M.D., Iowa City
Councilor, 3rd District (3 year term)	J. M. Rhodes, M.D., Pocahontas
Councilor, 5th District (3 year term)	H. E. Wichern, M.D., Des Moines
Councilor, 6th District (To complete an unexpired term—term to expire at the Annual Meeting 1970)	G. A. Fry, M.D., Vinton
Councilor, 10th District (3 year term)	E. E. Gamet, M.D., Lamoni
Blue Shield Liaison Delegates to IMS (Two to be elected)	C. L. Kelly, Jr., M.D., Charles City J. M. Rhodes, M.D., Pocahontas S. P. Leinbach, M.D., Belmond R. C. Larimer, M.D., Sioux City



Please turn page

Additional nominations may be accepted from the floor, and thereafter the speaker of the House of Delegates will declare nominations closed.

The Articles of Incorporation and By-Laws require that for candidates to be unopposed for nomination they must be unanimously approved by the Nominating Committee. Although it is recognized that it is desirable to have two candidates as a minimum for each of the proposed offices, the Nominating Committee is submitting but one candidate for some offices, since theirs were the only names formally proposed to the Nominating Committee, and they were unanimously approved by the Nominating Committee.

It will be noted that there are four candidates for the two offices of Blue Shield Liaison Delegate to the Iowa Medical Society. Under the Articles of Incorporation and By-Laws of the Iowa Medical Society, the Liaison Committee shall submit to the Nominating Committee the names of four or more candidates for the two positions of Liaison Delegate. Therefore, under the IMS By-Laws, it is mandatory that four or more names be submitted to the Nominating Committee for these offices. These names are merely received by the Nominating Committee and submitted as a part of its report to the House of Delegates.

Respectfully submitted,
J. F. BISHOP, M.D., *Chairman*
V. H. CARSTENSEN, M.D.
B. H. OSTEN, M.D.
J. C. PETERSON, M.D.
J. L. GARRED, M.D.
E. E. LINDER, M.D.
C. D. ELLYSON, M.D.
J. E. TYRRELL, M.D.
J. R. SCHEIBE, M.D.
J. C. NOLAN, M.D.
M. E. OLSEN, M.D.

Nominations from the floor were requested, but none were presented. The report of the Nominating Committee was adopted as presented.

NECROLOGY COMMITTEE

(The Speaker asked the members of the House of Delegates to rise while Dr. E. E. Gamet, secretary of the Judicial Council, read the names of members of the IMS who had died during 1968. The list appears on page 615 of this issue of the JOURNAL.)

COMMITTEE ON LEGISLATION

(Referred to the Reference Committee on Legislation and Medical Service.)

Following past custom this report will be divided into two sections dealing, respectively, with federal legislation and state legislation.

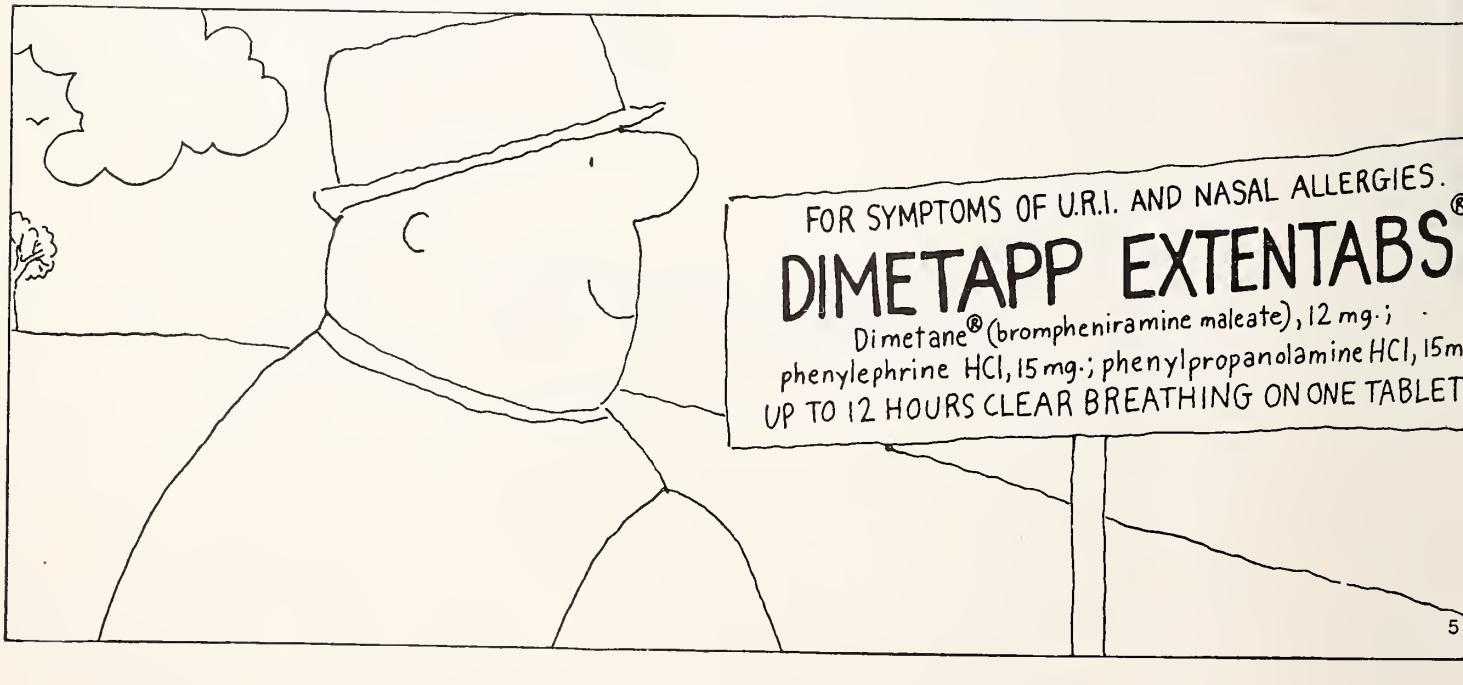
FEDERAL LEGISLATION

Following the election of a new administration and a new Congress, the early months have been devoted to organization and committee hearings, and few final actions have been taken on measures in the field of health care. A normal number of health bills have been introduced, and hearings have been held or are in progress on such items as extension of Hill-Burton, drug legislation and the cost of health care. The AMA has testified at hearings on several of these matters, including ones held before the House Ways and Means Committee on taxation of "unrelated income" of tax-exempt corporations. Such income, of course, relates to advertising in JAMA, other AMA publications and the JOURNAL OF THE IOWA MEDICAL SOCIETY.

Representatives of the IMS Committee on Legislation, IMS officers and staff will travel to Washington, D. C., on May 15 and 16 to meet with the Iowa Congressional delegation. This trip has become a yearly function of the IMS, and has proved an excellent way of maintaining liaison with Iowa Congressmen and Senators. This year the meeting is being combined with an AMA-AMPAC Public Affairs Conference scheduled for May 17 and 18 in Washington.

STATE LEGISLATION

The greater portion of this report will, of necessity,



deal with state legislation. This is the first year of the newly-established annual sessions of the Iowa General Assembly. Many items relating to health care are under consideration. It will be difficult to evaluate this Legislature as it relates to health legislation until the close of the second session, which will take place in 1970. The leaders in the Legislature have stated on many occasions that this first session will be devoted primarily to vitally important state issues such as reapportionment, taxes and appropriations, and that much of the special-interest legislation will be carried over until the 1970 session.

The Committee, working closely with the legislative contact men, has been kept extremely busy. Every item of legislation introduced into the General Assembly is screened by legal counsel, and in excess of 60 bills, though not necessarily parts of the IMS legislative program, still require the attention of the Committee on Legislation. This report will deal only with the more important items, and the members of the House of Delegates should realize that, as indicated above, it reviews only a portion of the Society's total legislative activity. Obviously, the magnitude of health-related legislation requires the Legislative Committee to establish a priority system for dealing with specific bills, and with each session the question of priorities becomes more crucial and difficult to answer.

Proposed Change in the Chiropractic Practice Act (SF 91). All of you are aware that by just a one-vote margin the Senate re-referred the chiropractic bill to the Senate Judiciary Committee. For practical purposes that action should dispose of the bill for this session. It is understood, however, that chiropractors will increase their efforts to expand their practice act in future sessions. Chiropractors have to win *only once!* An important factor in this continuing battle is the persisting division between the "straights" and the "mixers" within the chiropractors' ranks.

The Committee on Legislation is in the process of ascertaining exactly why the Senate so nearly adopted this legislation, and it will organize a campaign to provide legislators with specific reasons why this bill or similar legislation is *not* in the public interest. This can be accomplished only with the full cooperation of physicians at the local level. The legislative contact men will continue to be most important links in this legislative endeavor. It may become necessary for the Medical Society to cease its defensive tactics, and take the offense in proposing legislation to define clearly the scope of chiropractic.

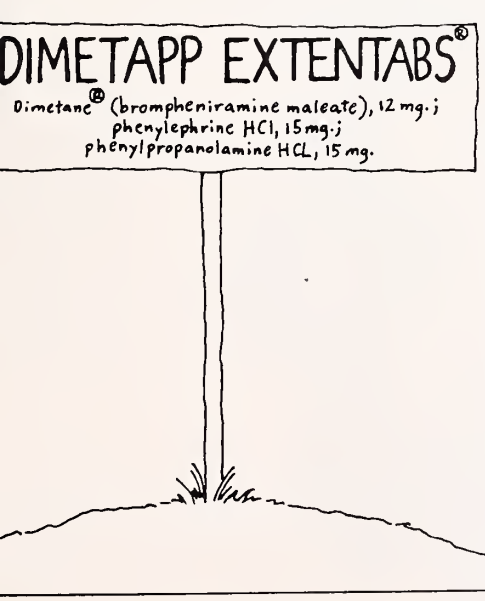
Professional Corporations (SF 554 and HF 652). Despite the Executive Council's late adoption of Society policy in support of professional-corporation legislation, we are happy to report that on Wednesday, April 23, the Senate Commerce Committee reported out for passage a professional-corporations bill (SF 554). The IMS has cooperated with 10 other groups listed in the bill in an effort to encourage its passage during 1969. Personal contacts have been made by the IMS president with the other groups, and a meeting of the staffs and legal advisors was held to coordinate support for the legislation. We have thus far encountered no formal opposition to the proposal, and we anticipate favorable consideration.

Because of the late start, enactment may not be possible in 1969, since the Legislature is rapidly moving toward adjournment, and there may not be enough time for consideration of this bill in both houses of the General Assembly. Continued efforts will be made to pass the bill in 1969, but if that proves impossible, we anticipate favorable action on it in 1970.

Good Samaritan Law (HF 39). Early in the session both houses overwhelmingly passed a Good Samaritan bill, and it has been signed by the governor and will become effective on July 1, 1969.

You will recall that the House of Delegates, in 1968, instructed the Committee on Legislation to encourage introduction and passage of such legislation, which is designed to protect individuals from suits for damages when they have rendered emergency care in good faith.

Therapeutic Abortion (SF 202). One of the most controversial items before the 1969 General Assembly was a bill to modify the existing Iowa statutes regarding abortion. Since a question has been raised by some IMS members regarding the Society's support of this legislation, the Committee would like



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6

to take this opportunity to outline the history of this issue as considered by the House of Delegates.

IMS policies are established on a basis similar to that used by other organizations and governmental units—through deliberations by its appropriate representative policy-making bodies, either the House of Delegates or the Executive Council. Delegates from county medical societies have an opportunity to review proposed policy both prior to and following meetings of the House of Delegates.

With specific reference to modification of the Iowa therapeutic-abortion law, this IMS policy was established after a very lengthy and careful study by a committee of the AMA and by the IMS Subcommittee on Maternal and Child Health. The AMA House of Delegates, in November, 1965, received a report on therapeutic abortion prepared by the AMA Committee on Human Reproduction. The AMA House did not adopt that report in 1965, but referred it back to its Board of Trustees for an in-depth study. The AMA House of Delegates in June, 1967, received a report on therapeutic abortion from its Board of Trustees, and adopted it after consideration and open hearings before a reference committee.

On the state level, here in Iowa, the IMS House of Delegates, in 1967, considered two resolutions referring to the Iowa abortion law—one from Johnson County and one from Marion County. After open hearings before a reference committee, the IMS House of Delegates did not recommend approval, nor did it recommend opposition, to a modification of the abortion law, but suggested that the Society follow developments on that issue at all levels.

The IMS Subcommittee on Maternal and Child Health, as a part of its normal committee functions, received the AMA report on therapeutic abortion, and based on that action plus its own consideration of the matter, it submitted a report to the 1968 House of Delegates. In addition, two resolutions—one from Johnson County and one from Story County—were submitted to the House of Delegates. The report of the Subcommittee and both resolutions recommended that the IMS support certain modifications in the Iowa abortion law. The report and resolutions were considered during an open reference committee hearing, where both opponents and proponents of a change were given opportunities to voice their opinions. The reference committee unanimously adopted a report.

Any member of the reference committee who wished to do so could have submitted a minority report, and we understand that this possibility was considered, but no minority report was forthcoming. When the report was considered by the entire House of Delegates, one member of the House requested a roll-call vote, but his motion failed for lack of a second. On a voice vote, following what appeared to be little expressed opposition, the reference committee's report was adopted, and it then became official IMS policy. The action of the House was referred to the Committee on Legislation for its information and guidance in preparing for the next session of the Iowa General Assembly.

The Committee on Legislation considered the report and recommended to the Executive Council, in July, 1968, that certain less stringent modifications be made in the action of the House of Delegates. The Executive Council did not adopt the Committee's suggestions. Rather, it instructed the Committee on Legislation to follow the action taken by the IMS House of Delegates in April, 1968.

When the Iowa General Assembly convened in January, 1969, the policy of the House of Delegates was known to many members of the General Assembly through press coverage, mailings and other information routinely sent by the IMS to members of the Legislature.

The chairman of the Senate Committee on Social Services and other senators requested that the IMS representatives meet with the Committee to discuss introduction of a bill embodying the principles established by the House of Delegates. It was the opinion of those senators that a committee bill would be preferable to a bill sponsored by individual senators. Representatives of the IMS met on at least two occasions with members of the Senate Committee on Social Services and reviewed IMS policy. A bill was approved by the Senate Social Services Committee and was introduced as SF 202. You all are aware of the actions taken by the Senate on this particular piece of legislation.

In legislative negotiations, IMS representatives were advised to adhere to the letter of IMS policy, and they did so. During the debate at a legislative hearing in which members of the IMS participated, it was clear that some physicians did not agree with the action of the House of Delegates. That, of course, was their privilege, and no effort was ever made to discourage their testimony.

The Committee is aware that more than 30 states presently are actively considering specific bills or have undertaken legislative studies relating to the modification of abortion laws. Most bills in those other states are in line with established AMA and IMS policy. In addition, several states including Iowa have bills under consideration which would permit abortions if performed in an accredited hospital under medical determination. These bills do not set forth additional stipulated criteria as to what circumstances need to be pesent for an abortion to be performed. At last report there were at least six states which within the past two or three years have enacted therapeutic abortion laws satisfying the AMA's criteria. In view of the number of states where this question is under study, it is very likely that several other states will pass similar bills either in 1969 or 1970.

The Committee on Legislation realizes that regardless of the Society's activity in this legislative area, bills on therapeutic abortion will be introduced and supported by various groups in future sessions of the Iowa General Assembly. The Committee believes the policy established by the House of Delegates is realistic and reflects the view of the majority of physicians in this state. It therefore recommends a reaffirmation of the Society's policy in favor of therapeutic abortion under the limiting guidlines previously adopted by this House of Delegates. The Committee, of course, will be guided in its future activity by policy established through the democratic processes of the IMS House of Delegates.

There are approximately eight other major items which deserve comment, but rather than discuss them individually, we are merely setting forth the present status of each in the legislative process. You will note that most have either been favorably considered by a committee or by one house of the General Assem-

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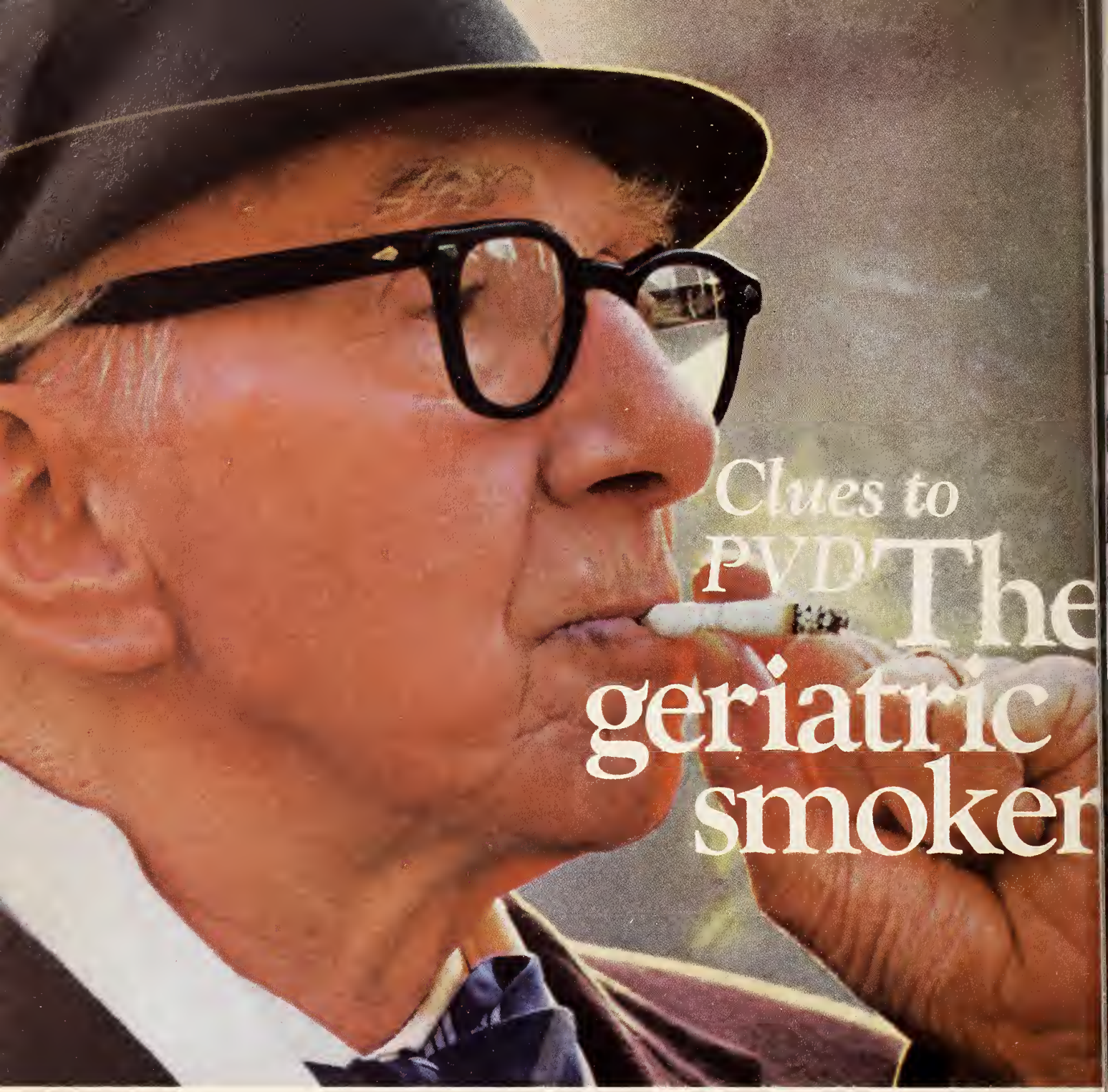
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In studies on peripheral vascular disease—a common by-product of the degenerative aging process—considerable attention has focused on the important role of smoking in the progression of the disease. Although it may not be etiologic, smoking is widely recognized as a prominent contributing factor.[1]

Skin blood flow—significant factor in PVD. Cutaneous digital vasoconstriction caused by nicotine has been observed both in normal subjects and in patients with peripheral vascular disorders.[1,2] Among patients with peripheral vascular disease, however, age and the severity of the disease appear to modify the effects of nicotine. For example, in a study of older patients with *marked* peripheral vascular disease,[3] changes induced by smoking were not statistically significant for the group as a whole. This was explained on the basis of decreased skin reactivity. *Smoking is not permissible in any stage of the disease*, since even "... minimal reduction in blood flow in patients with ischemic limbs may produce a further reduction in tissue nutrition, and thus may be another case of the proverbial straw on the camel's back."[3]

In another study of patients with peripheral vascular disease,[4] the investigators stress that decreased skin blood flow during smoking "... is the factor of most importance to the patient with peripheral vascular disease." *While such patients may adjust to the discomfort of vascular insufficiency in skeletal muscle, decreased skin blood flow may often lead to severe symptomatology.*

More and more physicians have adopted the practice of investigating for peripheral vascular disorder when confronted with a geriatric patient who is a habitual smoker. Once a diagnosis is established, therapeutic measures are directed toward increasing the peripheral circulation and appropriate management of the patient's general medical needs. These include the important safeguards of keeping warm and refraining from smoking.

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Caution: Roche Laboratories endorses caution in the administration of any therapeutic agent to pregnant patients.
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Dosage: 1 or 2 Timespan Tablets morning and night.
How Supplied: Timespan Tablets—150 mg nicotinyl alcohol in the form of the tartrate salt, bottles of 50.

References: (1) Roth, G. M.; Shick, R. M., and Secrest, R. R., in James, G., and Rosenthal, T., eds.: *Tobacco and Health*, Springfield, Ill., Charles C Thomas, 1962, pp. 311-322. (2) Entmacher, P. S.: Proc. Med. Sect. Amer. Life Convention *51*:149, 1963. (3) Freund, J., and Ward, C.: Ann. New York Acad. Sci. 90:85, 1960. (4) Coffman, J. D., and Javett, S. L.: Circulation 28:932, 1963.

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You might also say that all registered nurses aren't alike, either.



bly. As stated earlier in this report, it will be necessary to wait until after the 1970 session before the medical profession can evaluate fully the attitude of this General Assembly regarding health legislation.

Title XIX Carrier (HF 610), by Radl and others. Amend Chapter 223 Acts of 62nd General Assembly to provide that the Department of Social Services *may* contract with outside organizations on the handling of medical claims. (House calendar) (IMS opposes)

Radiation Control (SF 269), by Social Services Committee. An act establishing a radiation-control program under the administration of the State Department of Public Health, and the establishment of an advisory council. (Appropriations) (Part of the IMS legislative program—IMS supports)

O.M.V.I. (H.F. 207), by Holden and 32 others. Amend Sections 321, 281, etc. to set an intoxication standard (ten hundredths of one per cent, by weight, of alcohol in the blood), to add to the substances which it is illegal for a person to use while or before driving (narcotics, chemical agents, depressants, etc.) and to provide a change in the period of license revocation. (Passed House and on Senate calendar) (Amended to .15 per cent in Senate committee) (Part of IMS legislative program—IMS supports)

State Crime Laboratory (SF 585), by State Government Committee. Establishes state crime laboratory under the direction of a state medical examiner within the U. of I. College of Medicine. (Passed Senate) (Part of IMS legislative program—IMS supports)

Anatomical Gifts Act (HF 305), by Milligan and others. Act authorizing gift of all or part of human body after death for specific purposes. (Passed House) (Part of IMS legislative program—IMS supports)

Opticians (HF 342), by Kluever and others. Provides for registering dispensing opticians. (Social Services) (Same as SF 288) (Part of IMS legislative program—IMS supports)

Depressant Drugs (HF 516), by Voorhees. Amends Chapter 189, Acts of 62nd General Assembly to decrease the criminal penalties for violation of record-keeping regarding depressant drugs. (Passed House) (Part of IMS legislative program—IMS supports)

Blue Cross-Blue Shield Tax (SF 265), by Griffin. Amends Section 432.1 to impose the 2 per cent premium tax on non-profit hospital and medical service prepayment plans. (Ways and Means) (Same as HF 481) (IMS opposes).

It is obvious that the Society's involvement in the legislative area has, of necessity, greatly increased in the past few sessions of the General Assembly. Legislative activity has become a year-round function of the Committee, and therefore of the Society's legal counsel and staff. The physicians of Iowa should realize the importance of the Medical Society's activity in health legislation, and lend support by taking an interest at the local level not only in specific legislation but also in efforts prior to elections to assure that those elected to office have some appreciation of medicine's position on legislation. This can be accomplished only by participation in governmental affairs both before and after elections.

County medical societies, as well as individual doctors, have a responsibility to become acquainted with their legislators. An excellent method followed by many county societies is to invite all legislators in the area to attend county medical society meetings periodically. It is not necessary that they take part in a formal program on each occasion. They can be invited merely to attend as guests. The Committee on Legislation would suggest that, as a minimum, this should be done at least twice a year—once before each session and once following each session of the General Assembly.

In conclusion, the Committee would like once again to thank the legislative contact men, without whose help the Society's legislative program would not achieve the success it does. The LCM program will need to be refined, and efforts are under way to see that this occurs.

Respectfully submitted,
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W. C. MCCORMACK, M.D.
W. J. MORRISSEY, M.D.
W. J. ROBB, M.D.
G. I. TICE, M.D.
O. D. WOLFE, M.D.
J. E. KELSEY, M.D.

Dr. Kelley also reported extemporaneously on his Committee's most recent activities, and called upon Mr. Robert B. Throckmorton to add some further information. Then, at Dr. Kelley's invitation, Dr. Otis D. Wolfe reported on the work of the Iowa Medical Political Action Committee.

SUBCOMMITTEE ON MEDICAL ASSISTANCE

(Referred to the Reference Committee on Legislation and Medical Service.)

The Subcommittee on Public Assistance has been in session as recently as last Thursday (April 24), and this supplemental report is provided for the purpose of summarizing matters considered at that time. The April 24 meeting included an independent Subcommittee discussion and a session with representatives of the State Department of Social Services.

In considering this supplemental report, the House of Delegates is urged to keep near at hand the Subcommittee's 1969 HANDBOOK report. The HANDBOOK report contains information on the Title XIX program which is basic to the comments included in this summary. By this means, extensive repetition can be avoided.

The Title XIX program, nationally and within Iowa, has precipitated much comment within recent days and recent weeks. Public announcement has come unexpectedly within the past 10 days regarding federally proposed reductions in Medicaid payments for hospitalization and physicians' services. The Subcommittee has been made aware of the IMS Executive Council's concern over this development. It is felt that the Council should be praised for so promptly relaying its concern to the AMA. And the Subcommittee acknowledges the dispatch with which the AMA forwarded to HEW Secretary Robert Finch its reaction to his Department's announcement of a likely major reduction in the fees and charges of physicians and hospitals.

The Subcommittee does not totally agree that the

position taken in the AMA letter is strong enough. The Subcommittee regards this federal proposal as most ominous and one which the medical profession should resist to the fullest extent of its capability.

The House of Delegates is reminded that the federal proposal called for Medicaid physician schedules to "be based on the lowest prevailing Blue Shield payment rates for non-government medical services." This immediately introduces a conflict in Iowa, where the Title XIX enabling law provides for the payment of usual and customary fees.

It is the feeling of the Subcommittee that these HEW proposals—which apparently were made public prematurely—should receive maximum scrutiny from the Society and should be totally resisted. It is felt, further, that while the Society should not take an obstructionist position, it should be firm and resolute in opposing moves such as this, which further federalize and serve to erode the private practice of medicine.

The Subcommittee reminds the House of Delegates that the passage of the Social Security Amendments of 1965 constituted the abandonment of charity medicine in favor of programs which give needy people the resources to purchase medical care from private physicians and hospitals on the same basis as more affluent citizens.

This further entry by the federal government into the field of health care in the mid-1960's prompted a strong warning from the medical profession about soaring costs. That warning is fast being fulfilled. A variety of reasons account for this, including: (1) the increasing sophistication of medicine; (2) the high labor content of health-care delivery; and (3) the overdue need for a catch-up in paramedical wage scales. With respect to Title XIX and other governmental programs, the Subcommittee believes the Society has (1) a duty to acknowledge the high cost of health care, and (2) a responsibility to provide the leadership which will assure quality care within the economic capability of most of the citizens of the state.

As to the current specifics of Iowa's Medical Assistance (Title XIX) Program, the state appropriation for the coming fiscal year appears likely to coincide with the governor's suggestion of 12.2 million dollars. This sum will produce 27 million dollars from state and federal sources on a 45-55 matching percentage basis. The 12.2 million-dollar appropriation represents a scaling down of the askings of the State Department of Social Services, which amounted to 18 million dollars.

As explained at some length in the HANDBOOK report, the February 1 curtailment in Iowa's Title XIX Program was due to a fast-developing shortage of funds. That shortage, as mentioned, resulted from a variety of factors, not the least and probably the most important of which was the transfer of 4.8 million dollars from Title XIX to the Old Age Assistance Program and lesser amounts to others of the categorical programs. The reasons for this transfer are indeed complex and have to do with discrepancies between federal and state guidelines as they relate to Title XIX nursing home-care provisions.

At the risk of duplicating comments contained in our HANDBOOK report, we wish to point out the two following facts about the Medicaid cutback: 1. The shortage of Title XIX funds is not, in the main, the result of a significantly mis-predicted case load or the result of overly excessive charges by the vendors. 2. It appears quite likely that the announced curtailment (hospital-care limitation to 10 days and elimiation of those in the medical-only classification) will continue into the next fiscal year when new appropriations become available.

The Subcommittee has been informed that approximately 9.7 million dollars will be needed to meet remaining 1967-1969 Title XIX commitments. It is understood that only 4.7 million dollars remain of state and federal funds. The Subcommittee has been informed that high state officials have supported a two million dollar draw upon the next fiscal budget in order to clear anticipated obligations to the end of June. The two million state dollars will generate approximately three million matching federal dollars.

Representatives of the Department of Social Services have indicated that they are uncertain as to what the effect will be in Iowa with respect to the recent Supreme Court ruling which declared state welfare residence requirements illegal. It is felt that the ruling may result in an influx of ADC recipients, in view of the fact that Iowa welfare payments rank high nationally. It is considered unlikely that there will be any significant increase in OAA recipients.

The matter of medications and the provision for their distribution has been discussed with the officials of the Department of Social Services on numerous occasions. This area appears at this time to be one in which the state could realize some fiscal economies without jeopardizing the level of care. In the case of maintenance drugs and other long-term medications, the Department has recommended to physicians that prescriptions be written, when at all feasible, to cover a period of 30 or more days. The issuance of several prescriptions for the same medication in a single month to a reliable patient appears to the Subcommittee to be generally unwarranted. It is recognized that there are variables with each patient which must be considered.

As mentioned in the Subcommittee's HANDBOOK report, the 1967 Social Security Amendments provide that a state must establish a plan of utilization and cost review for each group of Title XIX providers. This review program was to have been instituted on April 1, 1968. However delay in the receipt of federal guidelines has resulted in only token attention being given to that requirement. In an April visit to Iowa, an HEW Title XIX review team asked that activity in this area be stepped up. Federal regulations allow for Title XIX use of existing Medicare utilization-review mechanisms.

It has come to the attention of the Subcommittee that in some states—notably New York—this quality and cost review program has been instituted in a manner which is most questionable and ominous. In New York, according to reports, Title XIX inspectors or auditors have come into physicians' offices and have asked to be permitted to examine patients' records to determine whether Medicaid standards are being met, in terms of level of care and cost. Such activity seems repugnant to the Subcommittee, and it feels that this approach should be totally resisted by the IMS.

On April 24, in an effort to satisfy this federal edict relative to quality and cost review, the Department of Social Services requested the IMS, through this Subcommittee, to assist with the development of certain program parameters or guidelines. These might, for example, include a reasonable number of visits per month, a reasonable number of injections per month, the kinds of services usually indicated for patients with various diagnoses, etc. It is understood that these would then be provided to the Medicaid carrier for use in flagging possibly questionable patterns or cases. It is further understood that any abuses discovered by the carrier would be given extensive review, and that it would make full use of the IMS and its county review network. In all of this discussion with the state officials, the Subcommittee has emphasized the concept of peer review. It is the consensus of the Subcommittee that only through the use of intraprofessional mechanisms will this review process operate satisfactorily. It should be clearly understood, however, that as the Medicaid program now stands, the ultimate decision-making power rests with the designated state agency, the State Department of Social Services, or more specifically—and fortunately, at this time—with Dr. Elmer M. Smith.

The Subcommittee is hopeful that the House will support its recommendation that the Society work with the State Department of Social Services in developing the aforementioned parameters. It believes the Society should be involved in the entire review process, and should offer its full resources and expertise in pursuit of a satisfactory program. The Subcommittee on Public Assistance, as now structured, stands ready to lend a hand in accomplishing this task. It is acknowledged, too, that the Society's State Claims Review Committee has knowledge and experience which could be put to good use in this area. And as mentioned earlier, use insofar as possible should be made of the existing county review committees.

The Subcommittee submits the following recommendation—that the IMS assign a priority classification to the providing of assistance in the formulation of a Title XIX review process—as the principal item in this supplemental report. It hopes that the House will see fit to endorse that recommendation. The Subcommittee presumes that the Executive Council will be kept apprized of developments in this area, and will be consulted as necessary on matters relating to policy.

The Subcommittee has been informed of the difficulties which have grown out of Medicaid rulings having to do with the determination of the need for skilled nursing care and custodial care. The authority of the carrier to rule that a patient needs either skilled nursing or custodial care, and thus to continue or deny Title XIX benefits, can cause problems for the physician. In some instances the carrier's rulings overturn the decisions or determinations of the physician. The physician finds himself in an undesirable middle position in instances where the skilled-nursing home operator reports that the physician has declared the patient in need of covered skilled-nursing care but the carrier rules otherwise. The Subcommittee believes the Society should remain alert to all procedural developments relating to care in extended-care facilities and skilled-nursing homes.

Other subjects touched upon at the April 24 session with the State Department of Social Services included:

1. *Organ Transplantation.* Activity in Iowa of this sort appears to be experiencing a steady growth. The Title XIX program has entered into 14 renal-transplant cases. It has provided $63,781.93 in support of those cases, the total cost of which was approximately $324,000.

2. *Title XIX Underwriting.* This concept has been reported in the press, and seems to be receiving support from the governor's office. Under such an arrangement the state would offer the Title XIX program to private insurers on a bid basis, and then would authorize the low bidder to underwrite and administer the program. Officials of the State Department of Social Services have acknowledged their interest in this approach, and have indicated that they are discussing the possibility with private insurers.

3. *Elimination of Carrier.* Legislation to change the terminology in the Title XIX enabling law from "shall" to "may" insofar as the use of a private carrier is concerned has received little attention from the General Assembly. Social Services representatives report that they are not pursuing the proposal.

4. *Title XIX Advisory Council.* Considerable effort has been exerted in recent weeks to make the statutory Medical Assistance Advisory Council a more active and forceful body. Effort to this end has been provided by several of the vendor groups and has been supported by the Department of Social Services. The chairman of this Subcommittee serves as the IMS representative on that Council, and intends to participate in the strengthening effort.

In concluding this report we should mention that the Subcommittee members, individually and collectively, have engaged this past year in a considerable amount of introspection. Some members have questioned the Subcommittee's ability to render further service to the medical profession. There is a feeling that this ability has diminished markedly. The several programs which formerly required extensive and stimulating negotiations between the IMS and the now extinct State Board of Social Welfare have been superseded by programs which are so locked-in by federal regulations that little or no latitude is possible. It is felt that the Subcommittee now has only a limited opportunity to function, and its members believe, too, that the state finds itself in a similar situation. The Subcommittee has suggested to Social Services officials that Iowa and other states, individually or collectively, need forcefully to make known to federal officials their distaste for the overwhelming national restrictions. This feeling has emerged as the Subcommittee has attempted to assess what is happening in medicine now, and what is likely to occur in the future. The Subcommittee has come to the conclusion that the federal bureaucracy is no longer responsive to the urgings of physicians on health-care matters, and it feels that this is a dramatic and dangerous development. The Subcommittee believes strongly that the medical profession—and private practitioners in particular—should be in the forefront of the health-care field.

For these reasons the Subcommittee feels that rather than knuckling-under to federal pressures, taking a posture of total despair, or assuming an obstructionist

role, the IMS should devote its total energies to finding means of providing health care in a climate of optimum freedom for patient and practitioner.

Respectfully submitted,
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C. J. SMITH, M.D.
ISAAC STERNHILL, M.D.
K. H. STRONG, M.D.
C. A. HANSON, M.D.

Supplemental Reports of Special Committees

The Speaker next called for the presentation of supplemental reports from special committees.

AD HOC COMMITTEE TO STUDY IMS COUNCILOR DISTRICTS

(Referred to the Reference Committee on Miscellaneous Business.)

In 1968 the House of Delegates recommended that a study of the IMS councilor districts be conducted. Following that action, the president in consultation with the Board of Trustees appointed a Committee which has met on at least two occasions to consider this most important and involved subject.

The Committee has reviewed information on the method of physician representation on policy-making bodies in various other states, as well as recent actions by a few medical societies to change such physician representation. The Committee has no specific recommendations with regard to redistricting which it wishes to submit to the House of Delegates, but it does feel that the members of the House should have the benefit of the information which it has gathered.

In conducting this study it was necessary to analyze the present councilor districts, plus the representation on the IMS Executive Council and in the House of Delegates. Attached as Exhibit A is a county breakdown of the 11 councilor districts, listing the number of active members in each county and the number of delegates from each county in the House of Delegates. For the calendar year 1968, there were 2,370 active members of the IMS. The following statistics regarding physician distribution by councilor district will be of interest.

1. The number of physicians represented by a councilor varies from a low of 36 to a high of 570. With respect to the number of physicians represented by a delegate to the IMS House of Delegates, the following ratios were computed:

Councilor District 1—1 Delegate to 11.2 Physicians
Councilor District 2—1 Delegate to 11.5 Physicians
Councilor District 3—1 Delegate to 8.4 Physicians
Councilor District 4—1 Delegate to 16.3 Physicians
Councilor District 5—1 Delegate to 22.2 Physicians
Councilor District 6—1 Delegate to 17.4 Physicians
Councilor District 7—1 Delegate to 21.4 Physicians
Councilor District 8—1 Delegate to 18.4 Physicians
Councilor District 9—1 Delegate to 10.6 Physicians
Councilor District 10—1 Delegate to 4.3 Physicians
Councilor District 11—1 Delegate to 10.5 Physicians

2. Fifty-two counties have 10 or fewer IMS members; 28 counties have been between 11 and 20 members; 2 counties have between 21 and 30 members; 16 counties have 30 or more members. These total 98 counties. Because Warren has amalgamated with Polk County, the total for medical society purposes is 98 rather than the normally-referred-to 99 counties.

3. The 16 largest Iowa counties have 68 per cent of the doctors and 44 per cent of the delegates to the IMS House of Delegates. Seventy-five counties have 26 per cent of the IMS members and 50.7 per cent of the votes in the House of Delegates.

4. In 1968 there were 150 delegates in all, and two of those were liaison delegates. The remaining 148 represented county societies.

5. A review of the councilor district statistics will point up certain facts. In each of seven districts a large county tends to dominate the district. The county and its percentage of its district membership, in each instance, are of interest: District 2—Cerro Gordo—54 per cent; District 4—Woodbury—54 per cent; District 5—Polk-Warren—64 per cent; District 6—Black Hawk—48 per cent; District 7—Johnson—49 per cent; District 8—Scott—41 per cent; and District 11—Pottawattamie—56 per cent. These counties constitute population centers fairly well scattered around the state. They are surrounded by counties having smaller physician populations.

As a possible basis for redistricting, the Committee reviewed the 16 regions established by the governor's office for planning and programming, as well as the seven congressional districts.

Some of the ideas expressed by various Committee members follow, but they do not represent specific recommendations:

1. The Committee might adhere to a strict one-man-one-vote philosophy in proposing a redistricting of the IMS or for a change in the makeup of its House of Delegates.

2. Because of the limited number of physicians practicing in certain sections of Iowa, the one-man-one-vote principle would be difficult to adopt if active participation by physicians in those sparsely settled areas were to be retained.

3. The councilor districts might be made larger in area, and might contain about equal numbers of physicians.

4. The councilor districts might be made smaller and more councilors might be appointed.

5. Small counties might be forced to amalgamate (rather than permitted to hyphenate, as at present) until their societies reached the minimum number of physicians entitled to a delegate in the IMS House of Delegates.

6. The number of physicians entitled to a delegate in the House might be reduced from the present 25 perhaps to 10 or 15. It was recognized that the House of Delegates must not be increased to a size that would be unwieldy.

7. Consideration might be given to establishing area societies rather than county medical societies.

8. Combining any two present districts might increase physician population in that district, but at the same time it would decrease councilor representation for the area. It would create an 18-county district covering an area that would be almost impossible for one councilor to service.

9. Combining two or more sparsely physician-populated counties would increase the membership of the resulting component society but might well decrease its representation in the House. Each county now has at least one delegate, but several possible combinations of three or four counties would result in a membership justifying only one or two delegates for the united counties.

10. A further attempt at equalizing the membership within districts might involve some gerrymandering of boundary lines. The resulting crazyquilt design of district shapes is almost too awesome to contemplate.

In its deliberations the Committee was well aware that any change would most likely require amendments to the Articles of Incorporation and By-Laws of the IMS, and could well involve several years of intensive study and consideration by the entire IMS membership before a modification plan could be devised that would be acceptable to the majority of Iowa physicians.

Three specific suggestions were considered, but no action was recommended:

1. Create a new councilor district consisting only of Polk-Warren. This district would contain 334 members, leaving 181—a reasonable number—for the reconstituted District 5.

2. Consider creation of another new district consisting of Johnson or of Johnson and Linn.

3. Encourage contiguous sparsely-populated counties to form some type of confederation for purposes of facilitating better scientific programs and even for meetings. Each of the three or four counties involved would retain its identity for purposes of representation in the House.

One other possibility discussed related to the reapportionment of the Iowa General Assembly, in addition to the probable reapportionment of the Congressional delegation. The Iowa Legislature will be reduced from its present 124 House members and 61 Senate members to 100 House members and 50 Senate members in time for the 1970 elections. Following the 1970 census, the legislative districts will need to be realigned on the basis of the new census, in time for the 1972 elections. Also as a result of the 1970 census it is felt that Iowa will lose one congressman, and the present seven congressional districts will need to be realigned into six congressional districts. This activity could serve as a possible guideline for future considerations of IMS redistricting.

Based on the information available and in consideration of the various problems that could well arise in redistricting the state, the Committee has elected not to submit any specific recommendations for redistricting to the House of Delegates. The Committee strongly encourages county medical societies to consider joining with other county medical societies in an effort to strengthen their organizational structure, as well as improve the quality of their scientific programs. Obviously there are many county societies in the state which do not have enough physicians to fill the offices that are normally needed if they are to function as separate and distinct units.

Since the Committee was appointed as an *ad hoc* group and it feels that this report summarizes and concludes its deliberations, it recommends that it be discharged.

Respectfully submitted,
J. F. BISHOP, M.D., *Chairman*
L. W. SWANSON, M.D.
W. M. KRIGSTEN, M.D.
J. M. RHODES, M.D.
E. E. GAMET, M.D.
T. A. BURCHAM, M.D.
K. E. LISTER, M.D.
R. L. WICKS, M.D.

EXHIBIT A

COUNCILOR DISTRICT NO. 1

County	*Physicians*	*Delegates*
Mitchell	12	1
Howard	7	1
Winneshiek	11	1
Allamakee	9	1
Floyd	16	1
Chickasaw	8	1
Bremer	16	1
Fayette	16	1
Clayton	6	1
	101	9

COUNCILOR DISTRICT NO. 2

County	*Physicians*	*Delegates*
Kossuth	10	1
Humboldt	6	1
Hancock and Winnebago	14	2
Worth	3	1
Cerro Gordo	70	3
Wright	17	1
Franklin	7	1
Butler	6	1
	133	11

COUNCILOR DISTRICT NO. 3

County	*Physicians*	*Delegates*
Lyon	6	1
Osceola	3	1
Dickinson	7	1
Emmett	12	1
Sioux	12	1
O'Brien	9	1
Clay	12	1
Palo Alto	10	1
Pocahontas	7	1
	78	9

COUNCILOR DISTRICT NO. 4

County	*Physicians*	*Delegates*
Plymouth	9	1
Cherokee	20	1
Buena Vista	11	1
Woodbury	106	4
Ida	4	1
Sac	8	1
Monona	9	1
Crawford	9	1
Carroll	22	1
	198	12

COUNCILOR DISTRICT NO. 5

County	*Physicians*	*Delegates*
Calhoun	10	1
Webster	56	2
Hamilton	10	1
Greene	9	1
Boone	18	1
Story	56	2
Dallas and Guthrie	23	2
Polk (Warren)	334	13
	516	23

COUNCILOR DISTRICT NO. 6

County	*Physicians*	*Delegates*
Hardin	13	1
Grundy	7	1
Black Hawk	121	5
Marshall	43	2
Tama	8	1
Benton	12	1
Jasper	21	1
Poweshiek	7	1
Iowa	13	1
	245	14

COUNCILOR DISTRICT NO. 7

County	*Physicians*	*Delegates*
Buchanan	20	1
Delaware	7	1
Dubuque	64	3
Linn	130	5
Jones	11	1
Jackson	12	1
Johnson	280	11
Cedar	8	1
Clinton	38	2
	570	26

COUNCILOR DISTRICT NO. 8

County	*Physicians*	*Delegates*
Washington	9	1
Louisa	2	1
Muscatine	16	1
Jefferson	11	1
Henry	19	1
Des Moines	52	2
Lee	40	2
Van Buren	3	1
Scott	106	4
	258	14

COUNCILOR DISTRICT NO. 9

County	*Physicians*	*Delegates*
Marion	12	1
Mahaska	17	1
Keokuk	6	1
Lucas	3	1
Monroe	3	1
Wapello	42	2
Wayne	2	1
Appanoose	11	1
Davis	13	1
	109	10

COUNCILOR DISTRICT NO. 10

County	*Physicians*	*Delegates*
Adair	1	1
Madison	4	1
Adams	4	1
Taylor and Union	15	2
Decatur and Ringgold	6	2
Clarke	6	1
	36	8

COUNCILOR DISTRICT NO. 11

County	*Physicians*	*Delegates*
Harrison	6	1
Shelby	7	1
Audubon	3	1
Pottawattamie	66	3
Cass	8	1
Mills	4	1
Montgomery	11	1
Fremont	4	1
Page	18	1
	117	11

TOTAL ACTIVE MEMBERS—2,370
TOTAL DELEGATES—147

OSTEOPATHIC COMMITTEE

(Referred to the Reference Committee on Miscellaneous Business.)

Following the AMA House of Delegates' action of December, 1968, affecting relations between medicine and osteopathy, the IMS Osteopathic Committee has discussed the impact of the AMA recommendations and suggestions on the Iowa Medical Society and component county societies. The AMA recommendations and suggestions concerned acceptance of qualified osteoptahs (1) for active membership in county and state medical societies, thereby providing for their membership in the AMA; (2) for appointment to the medical staffs of accredited hospitals; (3) for appointment to AMA-approved internships; and (4) for appointment to AMA-approved residency programs and subsequent acceptance for examination by the American boards for the medical specialties. It was recommended that the determination of an osteopath's qualifications, in each instance, should be made at the level of the county medical society, the hospital medical staff, or the review committee or board having appropriate jurisdiction.

Your Committee reached no agreement on concrete recommendations to be placed before the IMS House of Delegates, but decided to share with you two different concepts that were brought out in its discussions. Adherents of the first concept think the AMA actions constitute too radical a departure from the *status quo*. They feel that the AMA wants to offer too much, too quickly to the osteopaths and they fear that certain osteopaths may take advantage of the "open door" policy to add to their status and prestige.

While acknowledging the osteopaths' need for improved education and postgraduate training, the members who adhere to this concept insist that inspection of the osteopathic colleges by the AMA, and upgrading of substandard facilities and teaching staffs should come before any osteopath is admitted to an AMA-approved internship. They would consider for county medical society membership only those osteopaths who shall have completed AMA-approved internships. These Committee members accept the bitter American Osteopathic Association response to the AMA's proposals as representative of the attitude of all osteopaths. They see the solution to the "osteopathic problem" as the gradual ascendancy of organized medicine over the "second-class profession," and an eventual "confession of error" on the part of organized osteopathy. The ideas of amalgamation, absorption and conversion, they consider not only impractical but also unacceptable.

The second of the two concepts centers upon the attitude that the AMA's multi-pronged plan is worthy of implementation if for no other reason than that the previous efforts to settle the "osteopathic problem" have failed. Further, those who hold this philosophy think that the amalgamation should be accomplished "with all deliberate speed" because of certain developments at the state and national levels regarding the medical manpower shortage and the possible release of federal and state funds for the construction of additional teaching facilities. The holders of this point of view are prepared to swallow their pride, to accept criticism and even to tolerate some questionable colleagues, if by doing so the public can gain improved health care, provided by a unified medical profession. These members of the Committee do not seek to take away the osteopaths' pride, their D.O. degrees, or their hard-won privileges, but want to give them a chance to enter the mainstream of medicine. They believe that the sentiment of "grass-roots" osteopaths is more rational and realistic than the fixed ideas of the officers of the American Osteopathic Association, and consequently that a meaningful dialogue between M.D.'s and osteopaths regarding the AMA proposals can be carried out here in Iowa. The ad-

herents of this philosophy are hopeful that a final solution can be reached within a reasonable length of time, and can be accomplished without bitterness and recrimination.

With this brief summary of the two philosophies, your Committee leaves it to the IMS House of Delegates to decide the future course of MD/DO relations in Iowa. It is hoped that full and thorough discussions will take place at the reference committee hearings.

The chairman acknowledges, with thanks, the dedication of the Committee members, the sterling assistance of staff members Ed Hamilton and Eldon Huston, and the sage advice of the IMS counsel, Mr. Robert B. Throckmorton.

Respectfully submitted,
J. M. RHODES, M.D., *Chairman*
K. V. JENSEN, M.D.
R. P. LAGONI, M.D.
R. N. LARIMER, M.D.
W. A. SEIDLER, JR., M.D.
T. E. SHEA, M.D.
J H. SPEARING, M.D.
L. F. STAPLES, M.D.

COMMITTEE ON SPORTS MEDICINE

(Referred to the Reference Committee on Miscellaneous Business.)

The Committee on Sports Medicine has met since the preparation of its HANDBOOK report and wishes to submit this supplemental summary (1) to report on matters considered at that more recent meeting, and (2) to reinforce the comments presented previously.

As reported earlier, much of the attention of the Committee on Sports Medicine has been directed this year to the matter of weight determination as it concerns high school wrestling. The Committee has joined with the Iowa High School Athletic Association and representatives of the Exercise Physiology Laboratory at the University of Iowa to test a unique formula which attempts to identify the ideal weight of a high school wrestler. Named for its originator, this approach has been designated the Hall Method. The early and favorable results of this experiment are summarized in the HANDBOOK report.

In short summary, the fall phase of the experiment involved the measurement of 1,000 boys from 30 different high schools in Iowa. Additionally, in February, the skeletal measurements of the 260 participants in the 1969 state high school wrestling tournament were obtained. Analysis of figures from this second group has not as yet been made available to the Committee.

Findings of the fall phase of the experiment indicate the Hall Method does have the potential to predict an accurate ideal body weight for a wrestler. This conclusion is based on the high positive correlation between actual and predicted body weights. Among those boys measured in the fall, approximately 40 actually weighed below the allowed percentage of their predicted ideal weight. These individuals were required to secure written permission from a physician to participate in wrestling at their actual weights.

It has been found that the Hall Method tends to under-predict for those wrestlers in the 145-pound-and-above weight classifications. As a result, it has been generally agreed that a new prediction equation must be developed for individuals in the four-weight classes starting at 146 pounds.

The Committee is quite pleased over the progress which has been made in this project, and is anxious for the House of Delegates to endorse the following recommendations to the Iowa High School Athletic Association, namely: (1) That the Hall Method be used for another year on a broadened experimental basis (to include insofar as possible the initial 1,000 boys from the 30 participating schools plus 1,000 additional boys from 30 other schools); (2) That the IHSAA consider an earlier weigh-in for wrestlers, perhaps during the first week of school instead of as late as November; (3) That physician supervision be required for any boy planning to lose as much as 10 per cent of his body weight; (4) That coaches maintain wrestling practice rooms at temperatures between 75 and 80 degrees; (4) That cleanliness be a fundamental part of any wrestling program, with wrestling mats cleaned thoroughly at least once a week; and (5) That the second or follow-up examination required of high school wrestlers be abandoned, since it serves no important purpose.

The Committee has been informed that continuing the wrestling project for another year will cost about $4,500. Previous expense of about $5,000 has been absorbed almost totally by the Iowa High School Athletic Association. To this point, the Committee's contribution has been one of time and expertise. The Committee has recommended to the Board of Trustees that the Society participate financially in the project at least on a token basis. It is understood that the trustees have referred this request to the Board of Directors of the Scanlon Medical Foundation. The Committee understands, further, that research activities of this nature fall within the financial purview of the Scanlon Medical Foundation, and it is hoped that the Board of Directors of the Foundation may consider the Committee's request favorably.

It should be mentioned that this project has evoked national interest and appears to have the potential for making an important contribution to the sport of wrestling. As evidence of this national exposure, Charles M. Tipton, Ph.D., of the University of Iowa, will discuss the project at the 1969 AMA Conference on the Medical Aspects of Sports to be held in Colorado. Dr. Tipton is now preparing an article on the project for possible publication in a near-future issue of the JOURNAL OF THE IOWA MEDICAL SOCIETY.

The Committee has several other broad subject areas under evaluation, e.g., the physical examinations of high school athletes as described in the HANDBOOK; the study of types and severity of athletic injuries; the matter of heat acclimation in early football drills; and the relationship of equipment to injuries.

The Committee is pleased to acknowledge the excellent spirit of cooperation which has developed over the past two years between the IMS and the Iowa High School Athletic Association. Much credit for this is due Mr. Bernie Saggau, the executive secretary of the IHSAA.

Respectfully submitted,
W. R. VAUGHAN, M.D., *Chairman*
R. W. ANDERSON, M.D.
W. R. BLISS, M.D.
J. C. CARR, M.D.
E. H. CEILLEY, M.D.
W. D. PAUL, M.D.
R. G. ROBINSON, M.D.
J. H. SPEARING, M.D.
R. Q. CHRISTENSEN, M.D.

STATE CLAIMS REVIEW COMMITTEE

(Referred to the Reference Committee on Legislation and Medical Service.)

During the past year, as stated in the HANDBOOK report, the State Claims Review Committee has considered 10 cases which have been appealed to the State Committee. Some cases have involved the amount of a medical fee, but the majority of cases reviewed have related to the utilization of medical services primarily for long-term stays in a hospital, an extended care facility or a nursing home.

There are two specific items about which the Committee would like to comment. The first involves payment for surgery and surgical assistants. This subject has resulted in many misunderstandings, particularly as it relates to administration of Medicare and Medicaid programs. It should be understood by the membership that the carrier, in processing and paying claims for surgery and surgical assistants, must be guided by the following policy of the Iowa Medical Society:

> "The entire listed surgical fee shall be paid to the operating surgeon as designated by the hospital record except as follows:
>
> "The need for a surgical assistant shall be determined in accordance with hospital and staff regulations. Payment for an assistant at a surgical procedure should be as usually handled in the locality where the services are rendered. The patient must be apprised of the manner in which the professional fees are apportioned."

By definition of this House of Delegates over the years, the surgical fee is commonly interpreted to mean the surgical fee, fee for surgical assistant and the usual preoperative and postoperative care, regardless of how this may be billed.

Because of misunderstandings in the processing of these claims, the State Claims Review Committee has appointed a subcommittee composed of the following physicians to meet with the Medicare carrier to discuss in greater detail the administrative problems involved in payment for surgery and surgical assistants: F. G. Ober, M.D., *Chairman*, W. A. Castles, M.D., J. K. MacGregor, M.D., D. C. Alftine, M.D., and V. L. Schlaser, M.D. Any recommendation emanating from this study will be properly reported.

The second problem area relates to long-term care in hospitals and extended-care facilities or nursing homes. The Medicare and Medicaid regulations spell out that payment under these programs is to be only for necessary medical services. The Committee realizes that it is often difficult to differentiate between necessary medical care and custodial care, particularly in the cases of elderly patients. In its deliberations on this type of case the Committee has been guided by the documentation provided by the physician and the institution, such as physician progress notes, nurses' notes, actions of utilization committees and other pertinent data. The Committee recommends that physicians be diligent in maintaining progress notes which clearly reflect the need for medical service in these long-term cases.

Finally, the Committee is of the opinion that the system of peer review for medical claims, as established by the Iowa Medical Society in cooperation with component county societies, has proved workable and is the best means of assuring governmental agencies, other parties and the public that physicians are capable of policing their own ranks and, in fact, provide the best mechanism to assure that high quality care is provided at the lowest possible cost.

Respectfully submitted,
R. S. GERARD, II, M.D., *Chairman*
D. C. ALFTINE, M.D.
A. REAS ANNEBERG, M.D.
A. W. BOONE, M.D.
W. A. CASTLES, M.D.
W. C. FRIDAY, M.D.
V. R. HEIMANN, M.D.
J. K. MACGREGOR, M.D.
F. G. OBER, M.D.
V. L. SCHLASER, M.D.

RESOLUTIONS

POTTAWATTAMIE AND MILLS COUNTY MEDICAL SOCIETIES NO. 1. HYPHENATION OF THE POTTAWATTAMIE AND MILLS COUNTY MEDICAL SOCIETIES

(Referred to the Judicial Council.)

WHEREAS, The members of the Pottawattamie County Medical Society have agreed to the creation of a hyphenated Pottawattamie-Mills County Medical Society, and

WHEREAS, The members of the Mills County Medical Society have agreed to the creation of a hyphenated Pottawattamie-Mills County Medical Society, and

WHEREAS, The physicians in several other counties have found mutual benefit in associating closely in this fashion, and such arrangements have been found acceptable to the Iowa Medical Society, and

WHEREAS, The councilor for the district has been so informed, therefore be it

Resolved, That the House of Delegates of the Iowa Medical Society, meeting in annual session, April 30, 1969, approve the hyphenation and thereafter refer to organized medicine in this area as the Pottawattamie-Mills County Medical Society, but with the understanding that though the physician members thereof intend to meet as a single society, the physicians of each county will maintain a separate representation in the IMS House of Delegates, and retain the right to withdraw from this alliance, should subsequent conditions warrant the same.

POTTAWATTAMIE COUNTY MEDICAL SOCIETY NO. 2. COMPULSORY IMMUNIZATION OF CHILDREN

(Referred to the Reference Committee on Legislation and Medical Service.)

WHEREAS, It is universally agreed that immunization of children for diphtheria, tetanus, pertussis, smallpox, rubeola and poliomyelitis is desirable and essential not only for the individual child's health but for the community's health as well, and

WHEREAS, Some children's lack of immnuization is a result of apathy, unawareness of the need, and/or indifference on the part of their parents, rather than by economic difficulties; therefore be it

Resolved, That the Pottawattamie County Medical Society press for compulsory immunization of all children prior to entry into school, and compulsory periodic re-immunizations until age sixteen (16) years, in accordance with the program recommended by the Academy of Pediatrics, and be it further

Resolved, That the Pottawattamie County Medical Society pursue this matter actively and enthusiastically by submitting a resolution to the April meeting of the Iowa Medical Society calling for the compulsory immunization of children, and by working through our own legislative and infections committees, our local Chamber of Commerce, our local boards of health, our elected city, county, and state representatives, and other county medical societies in Iowa.

HUMBOLDT COUNTY MEDICAL SOCIETY
NO. 3. IDENTIFICATION OF INGREDIENTS IN PRE-PACKAGED MIXES

(Referred to the Reference Committee on Miscellaneous Business.)

WHEREAS, It has been more and more apparent that the American diet is comprised increasingly of prepared foods and pre-packaged mixes, and

WHEREAS, The present labelling of ingredients is ambiguous (e.g., using "mono, di and triglycerides," and "monosterate," instead of specifying "animal fat"), and

WHEREAS, There are increasing numbers of patients on special diets, and these ambiguous identifications of ingredients create a problem for those who are concerned about allergies, cholesterol levels, etc., therefore be it

Resolved, That the U. S. Food and Drug Administration be asked to request all companies producing prepared mixes or pre-packaged foods to identify the ingredients therein, specifically identifying the flour as wheat, barley, oat, rye or rice flour, etc., and identifying the fats as to source from a specific animal, or if vegetable fat to identify the plant from which it came, and to specify egg whites and egg yolks separately.

CARROLL COUNTY MEDICAL SOCIETY
NO. 4. IOWA'S STATUTE REGARDING ABORTION

(Referred to the Reference Committee on Legislation and Medical Service.)

Be It Resolved, That there be no change in the present abortion law.

CARROLL COUNTY MEDICAL SOCIETY
NO. 5. CHIROPRACTIC-SPONSORED LEGISLATION

(Referred to the Reference Committee on Legislation and Medical Service.)

Be It Resolved, That the chiropractic-sponsored legislation be actively opposed.

DES MOINES COUNTY MEDICAL SOCIETY
NO. 6. DUTIES AND COMPENSATION OF COUNTY MEDICAL EXAMINER

(Referred to the Reference Committee on Legislation and Medical Service.)

WHEREAS, The duties of the county medical examiner have become somewhat burdensome at times, and

WHEREAS, The duties of the county medical examiner have become increasingly time-consuming, necessitating considerable loss of time from the doctor's medical practice, therefore be it

Resolved, That every effort be made to change the provision in the Medical Examiner Law which places responsibility for the personal effects of the deceased upon the medical examiner, thus enabling the medical examiner to devote his attention to those aspects of the case which relate to the cause of death, etc., and be it further

Resolved, That the compensation received by the medical examiner for the work he performs in that capacity be made commensurate with the compensation received by him or by other physicians in the private practice of medicine, and by attorneys in the practice of law, and that an appropriate committee be formed to determine a more realistic compensation for the medical examiner.

DES MOINES COUNTY MEDICAL SOCIETY
NO. 7. UNIFORM ANATOMICAL GIFTS ACT

(Referred to the Reference Committee on Legislation and Medical Service.)

Resolved, That the Des Moines County Medical Society commends the Iowa Medical Society's effort to further the adoption of the Uniform Anatomical Gifts Act by the General Assembly of Iowa.

POLK COUNTY MEDICAL SOCIETY
NO. 8. MEDICAL SOCIETY MEMBERSHIP FOR OSTEOPATHS

(Referred to the Reference Committee on Miscellaneous Business.)

WHEREAS, The American Medical Association at its recent Clinical Meeting at Miami Beach recommended that each county and state medical society accept qualified osteopaths as active members, and

WHEREAS, According to the By-laws of the Iowa Medical Society, county medical societies may include only doctors of medicine in their membership, therefore, be it

Resolved, That the Iowa Medical Society amend its Articles of Incorporation and By-laws to allow component county medical societies to include osteopaths in their memberships.

POLK COUNTY MEDICAL SOCIETY
NO. 9. PROFESSIONAL CORPORATIONS

(Referred to the Reference Committee on Legislation and Medical Service.)

WHEREAS, Iowa is not one of the states permitting professional corporations, and

WHEREAS, Professional corporations would present certain advantages to physicians of the State of Iowa, therefore, be it

Resolved, That the Iowa Medical Society endeavor to promote the enactment of legislation allowing professional corporations in the State of Iowa.

JOHNSON COUNTY MEDICAL SOCIETY
NO. 10. SUPPORT FOR DIPLOMA SCHOOLS OF NURSING

(Referred to the Reference Committee on Legislation and Medical Service.)

WHEREAS, The diploma schools of nursing produce nurses closely attuned to the nursing needs of the patient; and

WHEREAS, Since 1962 there has been a net decrease of 137 diploma programs in the United States; and

WHEREAS, The AMA House of Delegates is on record (during the 1968 Clinical Convention, and in many other actions going back to 1945) supporting a study at state and local levels to aid diploma nursing schools financially and otherwise; therefore be it

Resolved, That this House of Delegates instruct the Iowa Medical Society Board of Trustees, through ap-

propriate committees, to study the problem statewide and at the county level in consultation with the Iowa Hospital Association, the Iowa Nurses Association and the Iowa League for Nursing; and be it further

Resolved, That all avenues of financial (and other) support for diploma schools of nursing be explored in the local, state and federal areas, and be it further

Resolved, That the information gathered and the action effected by the Board of Trustees be reported to the next annual meeting of this House of Delegates.

BLACK HAWK COUNTY MEDICAL SOCIETY
NO. 11. SOLICITATION AND COMMERCIAL ADVERTISING OF A MEDICAL SPECIALTY BY LAY CORPORATIONS IN AMA PUBLICATIONS

(Referred to the Reference Committee on Miscellaneous Business.)

WHEREAS, the AMA Board of Trustees voted last fall to open all AMA publications to solicitation and commercial advertising of a medical specialty (pathology) by lay corporations, and

WHEREAS, Physicians, by long tradition, are forbidden any activities characterized by self-laudation and solicitation, both of which are essential to commercial advertising, and

WHEREAS, This policy of the AMA Board of Trustees encourages the practice of medicine by lay corporations, and promotes solicitation, in violation of all codes of medical ethics, and

WHEREAS, This policy, adopted by the AMA Board of Trustees without consulting the AMA House of Delegates, will set a precedent for regional, state and other medical journals, will spread to other fields of medicine and will lower standards of patient care, therefore be it

Resolved, By the Black Hawk County Medical Society, in ordinary session assembled March 18, 1969, that this Society

1. Reaffirms medicine's traditional opposition to the practice of medicine by lay corporations, and to solicitation, and to commercial advertising of the practice of medicine, and

2. Requests its Iowa Medical Society delegates to oppose this new AMA Trustee policy vigorously at the IMS Meeting in Des Moines next April, and

3. Requests these delegates to call on the Iowa delegation to AMA to reverse this policy at the July AMA convention in New York City.

WEBSTER COUNTY MEDICAL SOCIETY
NO. 12. SELECTION OF MEDICAL STUDENTS WHO WILL REMAIN IN IOWA

(Referred to the Reference Committee on Miscellaneous Business.)

WHEREAS, There is evidence of an urgent and increasing shortage of physicians in Iowa, particularly in the area of general practice, and

WHEREAS, Existing efforts to correct this shortage by voluntary recruiting are inadequate, and

WHEREAS, There are more academically qualified applicants for the entering class in the Medical School in Iowa City than can be accepted each year, therefore be it

Resolved, That the House of Delegates of the Iowa Medical Society request appropriate officials in the State of Iowa and in the Medical College at Iowa City to establish a program of admissions which will give preferential consideration to prospective first-year students, regardless of their state of legal residence, who will pledge themselves to serve a specified number of years in the general practice of medicine in this state upon completion of a satisfactory rotating internship, and upon completion of any required military service.

WEBSTER COUNTY MEDICAL SOCIETY
NO. 13. TUITION FORGIVENESS PROGRAM FOR PHYSICIANS REMAINING IN IOWA AFTER GRADUATION

(Referred to the Reference Committee on Miscellaneous Business.)

WHEREAS, Tuition charges in the College of Medicine repay only a small fraction of the cost of operation of the medical college, and

WHEREAS, The taxpayers of this state maintain the medical school for two purposes, namely, (1) the education of our youth, and (2) the supplying of competent physicians to serve the medical needs of the people of this state, and

WHEREAS, In recent years increasing numbers of young people avail themselves of this direct tax subsidy, amounting to many thousands of dollars per medical graduate, only to leave the state, never to return, and

WHEREAS, The people of Iowa in large and small communities are faced with a growing shortage of physicians of serious proportions, therefore be it

Resolved, That the House of Delegates of the Iowa Medical Society endorses a program whereby tuition charges, supplemented with a matching loan program, be increased to effectively high levels, with the provision that such tuition charges may be cancelled on a year-for-year basis by graduates of the Medical School who practice in this state upon completion of an approved rotating internship, and any mandatory military service.

SAC COUNTY MEDICAL SOCIETY
NO. 14. CHANGE IN FORMAT AND FUNCTION OF ANNUAL STATE MEDICAL MEETING

(Referred to the Reference Committee on Reports of Officers.)

WHEREAS, The present format of the annual meeting of the Iowa Medical Society was outlined many years ago, and

WHEREAS, The needs of the medical profession have changed markedly in the ensuing years, and

WHEREAS, Scientific information is adequately provided by other sources, and

WHEREAS, Social, economic and political problems now dominate the needs of the Iowa Medical Society, and

WHEREAS, Only a minor part of the annual meeting is devoted to these problems, and

WHEREAS, There is no way for the administrative officers to know the wishes, problems and ideas of the members of the Iowa Medical Society, therefore be it

Resolved, That a change in the format of the annual meeting of the Iowa Medical Society be made so that the major portion of the scheduled days of the annual meeting shall be devoted to the discussion, study and action on its main problems—namely, social, economic and political—and be it further

Resolved, That a more knowledgeable and penetrating method be adopted than the present procedure of submitting formal, inflexible and many times unimportant resolutions for the consideration of the House of Delegates of the Iowa Medical Society.

SAC COUNTY MEDICAL SOCIETY
NO. 15. AN APPROACH TO THE SOLUTION OF ADEQUATE MEDICAL MANPOWER IN IOWA

(Referred to the Reference Committee on Miscellaneous Business.)

WHEREAS, The supply of physicians in the rural sections of Iowa is inadequate, and

WHEREAS, The efforts of the medical manpower committee have not been successful in the past, and

WHEREAS, The basic problem is the atmosphere and emphasis during the medical students' academic years, with no positive attitude toward the general practice of medicine, and

WHEREAS, In most of rural Iowa the medical needs of the population cannot be met by physicians with specialty training, and

WHEREAS, The attitudes of the young physicians' wives play an important part in their decision as to where to locate, therefore be it

Resolved, That the Iowa Medical Society use its influence to correct, if possible, the academic atmosphere of the medical student in regard to the placement of positive emphasis on the greater challenge of the general practice of medicine, and be it further

Resolved, That an active program by the Iowa Medical Society be instituted to "sell" the medical students' wives on life in the smaller towns, such as county seat towns of Iowa.

JOHNSON COUNTY MEDICAL SOCIETY
NO. 16. EXTENDED CARE FOR MEDICARE PATIENTS

(Referred to the Reference Committee on Legislation and Medical Service.)

WHEREAS, Certain extended-care facilities have recently had the experience of having the fiscal agent arbitrarily deny payment on Medicare patients who had been properly certified by the utilization review committee; and

WHEREAS, This decision was made by the fiscal agent without benefit of knowledge of the details of the cases involved, and in fact, the only information possessed by the fiscal agent consisted of the patient's name, age, diagnosis and dates of stay in the extended-care facility; and

WHEREAS, The decision to recertify these patients was made by a utilization-review committee consisting of six disinterested physicians after a careful review of the charts as well as reports from the nurses, physiotherapists, speech therapists, social workers and administrative personnel; and

WHEREAS, It seems impossible that someone looking at a billing form can better judge the condition and needs of a patient than can the combined medical, administrative, nursing, social service, and physical therapy staff of an extended-care facility; therefore be it

Resolved, That the appropriate committee of the Iowa Medical Society investigate this matter and report its findings to the Executive Council of the Iowa Medical Society as soon as possible, and be it further

Resolved, That the Executive Council, after reviewing the findings of the Committee, take appropriate action and seek discourse with the offending fiscal agent to establish the authority of the utilization review committee.

MARION COUNTY MEDICAL SOCIETY
NO. 17. TENURE OF AMA DELEGATES

(Referred to the Reference Committee on Miscellaneous Business.)

WHEREAS, The purpose of electing delegates of the State Medical Society to the American Medical Association is in part to provide representation of the interests, concerns, needs, expertise and perspectives of the State Medical Society, and

WHEREAS, The routine re-election of such delegates from the State Medical Society to the American Medical Association may tend progressively to increase the delegates' identification and perspectives with bureaucratic aspects of medicine in general, and the American Medical Association's inbred philosophies in particular, and

WHEREAS, The assured change of such delegates to the American Medical Association on a regular basis may contribute a salutary searching for not only desirable persons to serve as delegates, but also for the issues which the members of the State Medical Society wish to be given due review, consideration and revision, and

WHEREAS, The establishing of a uniform duration of representation of State Medical Societies to the American Medical Association would be expected to create a climate for review and consideration of issues at hand by such a body of delegates, that would be based on the sound, rational, objective consideration of basic merits to an extent more desirable and consistent than tends to be the case when factors such as seniority of office or the prestige of specific larger states, etc., may cloud the issues, therefore be it

Resolved, That the Marion County Medical Society submit to the State Medical Society the strong recommendation that the American Medical Association consider for adoption the policy that each and every state medical society elect its delegates to the American Medical Association for periods not to exceed three years, and

Resolved, That no such delegate shall hold such office continuously for more than three years, and

Resolved, That having completed a term of office as state delegate to the American Medical Association, such delegate shall not be returned to that office until he has vacated that office, continuously for the number of years that he occupied it, and further

Resolved, That the replacement of delegates from any State Medical Society to which this resolution applies, shall be staggered over a three year period—one third the first year, one third the second year, and the balance the third year.

JEFFERSON COUNTY MEDICAL SOCIETY
NO. 18. BLUE SHIELD ASSIGNMENT

(Referred to the Reference Committee on Blue Shield.)

Be It Resolved, That the Iowa Medical Society request that Blue Shield allow patients to assign insurance benefits to doctors.

LIFE AND ASSOCIATE MEMBERSHIPS

LIFE MEMBERSHIP RECOMMENDED ON THE BASIS OF 50 YEARS' PRACTICE AND 30 YEARS' MEMBERSHIP

County	*Name*
Cerro Gordo	Roy N. Reuber, Mason City
Clinton	Warren H. Foster, Clinton
Des Moines	Robert H. Crawford, Burlington
	Alfred A. Eggleston, Burlington
Emmet	Luther W. Loving, Estherville
Greene	Albert J. Jongewaard, Jefferson
Jackson	Owen L. Frank, Maquoketa
Johnson	William M. Rohrbacher, Iowa City
Jones	John H. Fraser, Monticello
Polk	Paul E. Gibson, Des Moines
	Helen Johnston, Des Moines
	Harold J. McCoy, Des Moines
	John H. Tait, Des Moines
Scott	J. Emmet Rock, Bettendorf
Woodbury	Robert H. McBride, Sioux City

ASSOCIATE MEMBERSHIPS RECOMMENDED ON THE BASIS OF RETIREMENT OR INCAPACITATION

County	*Name*
Boone	Wallace H. Longworth, Boone
Greene	Leo C. Nelson, Jefferson
Hardin	Fern N. Cole, Iowa Falls
Lee	Loira C. Pumphrey, Keokuk
Polk	Harry Burns, Des Moines
	Alma B. Kelly, Des Moines
	Joseph B. Priestley, Des Moines
	Herbert A. Sohm, Des Moines
Scott	Richard V. Daut, Davenport
	Albert J. Lenzmaier, Davenport
Woodbury	Herbert C. Leiter, Sioux City

The physicians nominated for each of these membership categories were then approved unanimously.

The Speaker then announced the meeting places for the various reference committees and said that they would convene at 2:45 that afternoon. Delegates were informed that the House of Delegates would convene Wednesday morning, April 30, at 8:00 a.m. in the Grand Ballroom of the Savery Hotel. They were asked to report promptly. The House adjourned at 1:50 p.m.

WEDNESDAY SESSION, APRIL 30, 1969

The Wednesday session of the House of Delegates was called to order at 8:10 a.m. The House approved the taking of attendance by registration cards. There were 106 delegates, 7 voting alternates and 18 ex-officio members present.

County	*Delegate*	*Alternate*
Adams	J. C. Nolan	
Appanoose	E. A. Larsen	
Black Hawk	D. E. Conklin	
	C. D. Ellyson	
	G. R. Clark	
		A. W. Devine
Boone	E. E. Linder	
Bremer	V. H. Carstensen	
Buchanan	L. J. Flage	
Calhoun	R. P. Ferguson	
Carroll	H. L. Skinner	
Cedar	G. H. Utley	
Cerro Gordo	G. T. Westly	
	E. D. Kennedy	
	A. J. Herlitzka	
Chickasaw	J. C. Carr	
Clarke	J. D. Kimball	
Clinton	J. L. Monahan	
Crawford	D. J. Soll	
Dallas-Guthrie	W. A. Castles	
	W. A. Seidler, Jr.	
Davis	Richard Schoonover	
Decatur-Ringgold	E. E. Gamet	
Delaware	J. E. Tyrrell	
Des Moines	J. F. Foss	
Dickinson	D. F. Rodawig, Jr.	
Dubuque	K. K. Hazlet	
Emmet	H. A. Lindholm	
Fayette	R. S. Jaggard	
Floyd	K. P. Steimel	
Franklin	R. E. Munns	
Fremont	F. M. Ashler	
Hamilton	G. A. Paschal	
Hancock-Winnebago	L. R. Fuller	
	J. T. Mangan	
Hardin	J. J. Shurts	
Harrison	J. W. Barnes	
Henry		W. R. Vaughan
Humboldt	Beryl Michaelson	
Ida	J. B. Dressler	
Iowa	D. F. Miller	
Jefferson	G. E. Egli	
Johnson	K. R. Cross	
	Mark Immergut	
	R. D. Liechty	
	Jack Moyers	
	A. S. Norris	
	C. E. Radcliffe	
	G. R. Zimmerman	
		K. J. Judiesch
Jones	E. H. DeShaw	
Keokuk	Opas Jutabha	
Kossuth	R. E. Jongewaard	
Lee	G. C. McGinnis	
		Sebastian Ambery
Linn	R. M. Chapman	
	J. J. Keith	
	H. R. Hirleman	
	W. J. Robb	
	R. A. Sautter	
Madison	R. W. Carson	
Mahaska	G. W. Bennett	
Marion	Peter Van Zante	
Marshall	L. O. Goodman	
	W. T. Shultz	
Mills	C. D. Stinard	
Monona	J. L. Garred	
Montgomery	Oscar Alden	
Muscatine		K. E. Wilcox
O'Brien	J. C. Peterson	
Page	G. H. Powers	
Palo Alto	H. L. Brereton	
Pocahontas	J. B. Thielen	
Polk	Wallace Rindskopf	
	N. W. Irving, Jr.	
	J. L. Fatland	
	John Hess, Jr.	
	J. G. Thomsen	
	D. J. Walter	
	M. H. Dubansky	
	A. N. Smith	
	W. R. Hornaday, Jr.	
	R. E. Hines	
Pottawattamie	A. L. Sciortino	
	M. E. Olsen	
	Hormoz Rassekh	
Poweshiek	H. R. Light	
Sac	C. D. Gibson	
Scott	R. P. Lagoni	
	J. F. Bishop	
	J. F. Collins	
		D. A. Bovenmyer
Shelby	J. H. Spearing	
Story	G. E. Montgomery	
	W. R. Bliss	
Tama		A. J. Havlik
Union-Taylor	R. H. Kuhl	
	R. W. Boulden	
Wapello	R. A. Hastings	
	R. P. Meyers	
Washington	C. W. Beckman	
Wayne	K. A. Garber	
Webster	L. J. O'Brien	
	F. D. Lawson	
Winneshiek	T. F. Dynes	
Woodbury	C. L. Beye	
	L. H. Boggs	
	P. M. Cmeyla	
	R. C. Larimer	
Worth	B. H. Osten	
Wright	D. A. Harding	

LIAISON DELEGATES

S. P. Leinbach J. M. Rhodes

OFFICERS PRESENT AS EX-OFFICIO MEMBERS OF THE HOUSE

C. W. Seibert	H. E. Rudersdorf
W. M. Krigsten	L. D. Caraway
J. F. Paulson	H. J. Smith
V. L. Schlaser	L. W. Swanson
T. A. Burcham	E. M. Smith
J. H. Sunderbruch	P. M. Kersten
K. E. Lister	R. C. Hardin
R. L. Wicks	R. F. Birge
O. D. Wolfe	C. V. Edwards, Sr.

Dr. Schlaser read the minutes of the April 27 meeting of the House of Delegates, and the House approved them.

The election of officers followed, and the following physicians were chosen:

President-elect	J. H. Sunderbruch, M.D., Davenport
Vice-president	A. J. Havlik, M.D., Tama
Trustee	J. F. Paulson, M.D., Mason City
Secretary	V. L. Schlaser, M.D., Des Moines
Treasurer	T. A. Burcham, M.D., Des Moines
Speaker of the House	L. D. Caraway, M.D., Monticello
Vice-speaker of the House	C. J. Smith, M.D., Gilmore City
Delegate to AMA	E. M. Smith, M.D., Des Moines
Alternate Delegate to AMA	C. E. Radcliffe, M.D., Iowa City
Councilor, District 3	J. M. Rhodes, M.D., Pocahontas
Councilor, District 5	H. E. Wichern, M.D., Des Moines
Councilor, District 6	G. A. Fry, M.D., Vinton
Councilor, District 10	E. E. Gamet, M.D., Lamoni
Blue Shield Liaison Delegates to IMS	S. P. Leinbach, M.D., Belmond J. M. Rhodes, M.D., Pocahontas

Dr. W. D. James, president, State Medical Society of Wisconsin, Dr. Carl Clark, vice-president, Illinois State Medical Society, and Mr. Bernard Maroney, assistant secretary of the State Medical Society of Wisconsin, were then introduced by Dr. Kersten and recognized by the House.

Reference Committee Reports

The following reference committee reports were approved by the House of Delegates.

MISCELLANEOUS BUSINESS

The Reference Committee on Miscellaneous Business met in open hearing for 3¾ hours. The physicians who participated should be commended for their cooperation and patience in the detailed and lengthy consideration of the many items referred to the Reference Committee.

RESOLUTION NO. 17—INTRODUCED BY MARION COUNTY MEDICAL SOCIETY
TENURE OF AMA DELEGATES

The resolution requests a limit on the number of years an AMA delegate can serve. The resolution would apply not only to the state of Iowa but to all state delegations to the AMA. Testimony in favor of the resolution dealt with the need for change in the AMA to make it a more active and progressive voice of the medical profession.

The Reference Committee believes Iowa is fortunate to have excellent representation in its AMA delegation. The accomplishments of the Iowa delegation to the AMA are far out of proportion to its size. The Iowa delegation is generally acknowledged to be a most influential and effective voice for Iowa medicine. For these and other reasons the Iowa Medical Society is widely regarded as one of the most progressive and active medical organizations in the country. The Reference Committee believes this is due in no small part to the fact that the Iowa delegation, through its years of service, has established a rapport with other AMA delegates which should be maintained.

The Reference Committee feels there is always opportunity through the democratic process of election to replace any delegate to the AMA if this is felt desirable.

The Reference Committee recommends that Resolution No. 17 not be adopted.

Mr. Speaker, I move the adoption of this portion of the report.

RESOLUTION NO. 11—INTRODUCED BY THE BLACK HAWK COUNTY MEDICAL SOCIETY
SOLICITATION AND COMMERCIAL ADVERTISING OF A MEDICAL SPECIALTY BY LAY CORPORATIONS IN AMA PUBLICATIONS

Recently the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION has accepted ads from lay-controlled laboratories for publication and regional distribution. The Reference Committee was presented detailed testimony both from proponents of the resolution and from IMS legal counsel. The testimony related to the national picture of lay-controlled labs as contrasted to Iowa common law holding that services of clinical laboratories are an integral part of the practice of medicine. Due to the complexity of this entire matter, the Reference Committee recommends the adoption of the following substitute resolution:

WHEREAS, The operation of a medical laboratory is an integral part of the practice of medicine, and

WHEREAS, Physicians, by long tradition, are forbidden any activities characterized by self-laudation and solicitation, and

WHEREAS, AMA publications have contained advertisements by medical laboratories owned or operated by non-physicians which have been characterized by the self-laudation and solicitation that is forbidden to physicians, and

WHEREAS, The AMA "Principles Governing Advertising in the AMA Scientific Publications" apparently permit this discrimination against physician-operated laboratories and in favor of lay laboratories, which discrimination places physician-operated laboratories at a competitive disadvantage and permits subscribers to AMA publications to read commercial ads by lay laboratories and, at most, only dignified professional announcements by physician-owned laboratories, therefore be it

Resolved, That the Iowa Medical Society hereby requests its AMA delegates to sponsor a resolution at the next meeting of the House of Delegates of the American Medical Association which would limit the advertising of medical laboratory services in AMA publications to a simple announcement of available services of a type which would be ethical for physicians and yet permit laboratories operated by non-physicians to make a dignified announcement of the availability of their services.

Mr. Speaker, I move the adoption of this portion of the report.

RESOLUTION NO. 3—INTRODUCED BY THE HUMBOLDT COUNTY MEDICAL SOCIETY
IDENTIFICATION OF INGREDIENTS IN PRE-PACKAGED MIXES

The resolution relates to inadequate labeling of pre-packaged mixes and foods. This has proved very important in the treatment of medical conditions which require close dietary control.

The Reference Committee recommends that Resolution No. 3 be referred to the IMS Delegates to the AMA and that they be authorized to submit an appropriate resolution to the AMA House of Delegates requesting the U. S. Food and Drug Administration to investigate the desirability of more specific labeling for pre-packaged mixes and pre-packaged foods.

Mr. Speaker, I move the adoption of this portion of the report.

SUPPLEMENTAL REPORT OF COMMITTEE ON SPORTS MEDICINE

The Committee on Sports Medicine has initiated a program in cooperation with the Iowa High School Athletic Association and others relating to weight-determination for high school wrestlers. The program has proved successful and has established an excellent rapport at both state and local levels between the medical profession and those involved with this aspect of athletics.

The Reference Committee compliments the Committee on its efforts and encourages it to continue this particular program as well as devoting its expertise to other aspects of sports medicine.

Mr. Speaker, I move the adoption of this portion of the report.

The Committee report also deals with continued financing of the weight-determination program for wrestlers. The Reference Committee recommends that the House of Delegates encourage the officers of the Scanlon Medical Foundation to consider seriously some participation in the financing of this project.

Mr. Speaker, I move the adoption of this portion of the report.

SUPPLEMENTAL REPORT OF AD HOC COMMITTEE TO STUDY IMS COUNCILOR DISTRICTS

The Ad Hoc Committee has presented some revealing facts and figures regarding the present status of physician representation both within IMS Councilor Districts and in the House of Delegates. Testimony before the Reference Committee reflects some dissatisfaction in certain areas of the state, but in general it would appear that there is no widespread disapproval of the make-up of representative bodies of the Iowa Medical Society. Based on its study, the Committee did not submit specific recommendations for a complete re-districting of the Iowa Medical Society.

From a strictly organizational standpoint, it seems apparent that many county societies have too few physicians to allow meaningful participation in a realistic election of officers and presentation of scientific programs. The Reference Committee strongly encourages county medical societies to consider joining with other county medical societies in an effort not only to strengthen the local organizational structure but to enhance participation in the organizational structure of the Iowa Medical Society.

Mr. Speaker, I move the adoption of this portion of the report.

Representatives of several county societies within Councilor District 5 recommended creating a new councilor district consisting only of Polk and Warren Counties, and leaving the other county societies in the present District as a separate councilor district. This change would make a Polk-Warren councilor district consisting of 334 members, and the remaining counties would constitute a councilor district of 181 members.

The Reference Committee is informed that this rearrangement would be acceptable to the physicians in the present District 5, and it therefore recommends that the Standing Committee on Articles of Incorporation and By-laws be charged in 1970 with reporting to the House of Delegates amendments which would create a new councilor district consisting of Polk and Warren Counties, and a councilor district composed of the other counties now included in District 5.

Mr. Speaker, I move the adoption of this portion of the report.

The Ad Hoc Committee also recommends that it be discharged. The report of the Ad Hoc Committee indictates that very likely the State of Iowa will be reapportioned into six congressional districts instead of the present seven following the 1970 census. As the House knows, Iowa congressional districts are established in accord with total population figures, which also reflect to a large degree physician population. In view of this probability, the Reference Committee feels that the Iowa Medical Society may wish to consider redistricting the Iowa Medical Society following the 1970 census and the realignment of congressional districts. In view of this fact, the Reference Committee recommends that the present Ad Hoc Committee be discharged.

Mr. Speaker, I move the adoption of this portion of the report.

REMARKS OF C. W. SEIBERT, M.D., IMS PRESIDENT

RESOLUTION NO. 12—INTRODUCED BY THE WEBSTER COUNTY MEDICAL SOCIETY SELECTION OF MEDICAL STUDENTS WHO WILL REMAIN IN IOWA

RESOLUTION NO. 13—INTRODUCED BY THE WEBSTER COUNTY MEDICAL SOCIETY TUITION FORGIVENESS PROGRAM FOR PHYSICIANS REMAINING IN IOWA AFTER GRADUATION

RESOLUTION NO. 15—INTRODUCED BY THE SAC COUNTY MEDICAL SOCIETY AN APPROACH TO THE SOLUTION OF ADEQUATE MEDICAL MANPOWER IN IOWA

The Reference Committee commends the IMS president, C. W. Seibert, M.D., for the efforts made during the past year in an attempt to understand more fully the medical manpower problem and to communicate the findings not only to the IMS membership but to public and private bodies as well.

Mr. Speaker, I move the adoption of this portion of the report.

The efforts of the Task Force on Medical Manpower as set forth in the HANDBOOK reflect an active and dedicated effort on the part of the Iowa Medical Society to cooperate with all interested parties to alleviate the existing medical-manpower shortage.

From testimony before the Reference Committee it is obvious that individual physicians and county socieities have a keen awareness of the problem, but there is no unanimous agreement on methods of solution. In an effort to encourage medical students to practice in Iowa, some recommend programs of a compulsory nature, and others feel they are not feasible and voluntary efforts with some financial inducement are more acceptable.

The State of Iowa presently has a tuition-loan program for medical students with a forgiveness feature. Tuition being only one aspect of medical school expense, it was suggested at the hearing that a program be established which would provide a maximum of $2,000 per year for a period of four years, with a forgiveness feature of 10 per cent each year but the first 50 per cent would not be forgiven until

the individual had practiced in Iowa for five years. An additional 10 per cent would be forgiven for each year after the first five years, and total forgiveness would occur following ten years of practice in Iowa. For those who could not complete the program, the loan would be repayable at current interest rates.

The Reference Committee agrees that this type of program has merit, and therefore it recommends that the House of Delegates support such a loan-forgiveness program, not limited to tuition. It would utilize state appropriations and be made available to any medical student, regardless of residence. Details of such a program should be considered by the Task Force on Medical Manpower and the Committee on Legislation, and reported to the IMS Executive Council for appropriate action.

Mr. Speaker, I move the adoption of this portion of the report.

The above recommendation embodies some of the concepts outlined in Resolutions No. 12 and No. 13 from the Webster County Medical Society relating to the selection of medical students and a tuition-forgiveness program.

However, the Reference Committee feels that because of difficulties in administering the outlined program of student-selection, that Resolution No. 12 should not be adopted.

Mr. Speaker, I move the adoption of this portion of the report.

Resolution No. 13 from the Webster County Medical Society on a tuition-forgiveness program is similar to the Committee's previous recommendation on this subject, and the Committee feels that the approach it has recommended is more flexible. The Reference Committee, therefore, recommends that Resolution No. 13 not be adopted.

Mr. Speaker, I move the adoption of this portion of the report.

After hearing all testimony, the Reference Committee feels that one of the most effective programs for solution of the medical manpower problem is to *sell Iowa* aggressively. The Task Force on Medical Manpower has undertaken this project both with medical students and with wives of medical students. The Reference Committee again commends the Task Force for its efforts and encourages the Iowa Medical Society to strengthen and continue these programs at all levels.

The Reference Committee, therefore, recommends the adoption of the following substitute for Resolution No. 15:

WHEREAS, The supply of physicians in the rural sections of Iowa is inadequate, and

WHEREAS, The attitudes of the young physicians' wives play an important part in their decision as to where to locate, therefore be it

Resolved, That the Iowa Medical Society continue to use its influence to encourage medical students to consider the great challenge of the general practice of medicine, and be it further

Resolved, That an active program by the Iowa Medical Society be instituted to "sell" physicians' wives on life in the smaller towns of Iowa.

Mr. Speaker, I move the adoption of this portion of the report.

The Reference Committee heard testimony relating to the influence of available internship programs in Iowa on the decision of physicians to practice in this state. A broadened preceptorship program begun early in the medical students' training and utilizing community hospitals should be encouraged, since it could well result in an increased number of physicians' remaining in Iowa to practice.

Mr. Speaker, I move the adoption of this portion of the report.

Recently the American Medical Association approved a specialty board on family practice, as proposed by the American Academy of General Practice. The Reference Committee recommends that the Iowa Medical Society request that the College of Medicine establish a Department of Family Practice at the College of Medicine as an autonomous department with a staff and a department head.

Mr. Speaker, I move the adoption of this portion of the report.

Before leaving this broad subject of medical manpower, the members of the House and all physicians should be reminded that the Iowa Medical Society has and should continue to explore every conceivable avenue for increasing the physician population of Iowa. This will be done in a close working relationship with the College of Medicine, with state and local governments and with other private and public bodies interested in health care. This is a complex area of activity involving the entire citizenry, but it requires the leadership and participation of physicians at all levels.

Mr. Speaker, I move the adoption of this portion of the report.

SUPPLEMENTAL REPORT OF OSTEOPATHIC COMMITTEE

RESOLUTION NO. 8—INTRODUCED BY THE POLK COUNTY MEDICAL SOCIETY MEDICAL SOCIETY MEMBERSHIP FOR OSTEOPATHS

These two items were considered together since both deal with the broad subject of relationships between medical doctors and osteopaths. It is obvious to the members of the Reference Committee that the Supplemental Report of the Osteopathic Committee clearly reflects the attitudes toward MD-DO relationships that exist within the Committee and, we are certain, throughout the state of Iowa.

The report details two major approaches to an ultimate goal of strengthened MD-DO relations. The Reference Committee feels the following objectives must be held uppermost as this report is considered.

1. To assure the provision of the best possible health care to the people of Iowa.

2. To make available to students and graduates in osteopathic education the same high standards as prevail in undergraduate, graduate and continuing educational programs in medicine.

3. To provide avenues whereby qualified osteopaths may be assimilated into the mainstream of medicine.

The Reference Committee is keenly aware of the overall significance these objectives have on the total health-manpower needs which exist in the State of Iowa.

The Committee recognizes that the Iowa Medical Society was one of the first to implement a program which allows physicians at the local level to determine

whether or not they wish to associate ethically with osteopaths. The Joint MD-DO Evaluation and Enrollment Program has proved successful, although possible weaknesses in certain counties are acknowledged.

The Reference Committee recommends that the IMS Osteopathic Committee continue to explore actively all areas of relationship between M.D.'s and D.O.'s and be available as a resource body for individual physicians and county medical societies as they consider the matter of relationships between M.D.'s and D.O.'s at the local level.

Mr. Speaker, I move the adoption of this portion of the report.

The Reference Committee is cognizant of the attitude expressed by the president of the American Osteopathic Association in opposition to the position of the American Medical Association. Since the first objective established by the Reference Committee in its consideration of this entire subject is "to assure the provision of the best possible health care to the people of Iowa," we do not feel that the position of the AOA is realistic. Communications brought to the attention of the Reference Committee from practicing osteopaths in Iowa, including present and past officers of the Iowa Society of Osteopathic Physicians and Surgeons, indicate that individual members of the osteopathic profession in Iowa do not fully subscribe to the position of the American Osteopathic Association. It must be emphasized that any steps recommended should be implemented at the local level, and individual physicians and county medical societies should not be forced to participate unless they so choose.

Mr. Speaker, I move the adoption of this portion of the report.

The Reference Committee believes that for a doctor of osteopathy to be considered as qualified for some type of membership in a county medical society, he should as a minimum:

1. Be legally licensed without limitation of practice in the jurisdiction within which he practices.
2. Be willing to abide by the Principles of Medical Ethics of the American Medical Association.
3. Be practicing scientific medicine.
4. Be acceptable to the credentials committee of the county medical society.

Keeping in mind the objectives previously stated, the Reference Committee recommends the adoption of the following substitute *Resolved* for Resolution No. 8:

"*Resolved,* That the Iowa Medical Society Standing Committee on Articles of Incorporation and By-laws consider and report to the 1970 meeting of the House of Delegates appropriate amendments to the Articles of Incorporation and By-laws which would allow the Iowa Medical Society and component medical societies to provide qualified osteopaths with some type of membership."

Mr. Speaker, I move the adoption of this portion of the report, as amended.

The Reference Committee recommends adoption of Resolution No. 8 as amended.

Mr. Speaker, I move the adoption of this portion of the report.

Another item discussed before the Reference Committee related to appointment of qualified osteopaths to hospital medical staffs and the participation of qualified osteopaths in AMA-approved internship and residency programs. It was pointed out that, by action of the AMA, internship programs approved by the AMA may now be opened to D.O.'s. AMA-approved residency programs will be opened to D.O.'s when appropriate specialty boards make known their intention to accept osteopaths for board certification. The various specialty boards now have this matter under study.

Many Iowa hospitals—specifically those supported by tax funds (county and municipal)—do have osteopaths on their medical staffs. The Reference Committee recommends that the same criteria be used for evaluating qualified osteopaths for some type of membership in the county society as are applied in reviewing osteopathic applicants for appointment to medical staffs.

Mr. Speaker, I move the adoption of this portion of the report.

Mr. Speaker. I move the adoption of this report as a whole, as amended.

Respectfully submitted,
J. E. TYRRELL, M.D., *Chairman*
C. D. ELLYSON, M.D.
E. E. LINDER, M.D.
G. E. EGLI, M.D.
R. A. SAUTTER, M.D.

LEGISLATION AND MEDICAL SERVICE

The Reference Committee on Legislation and Medcal Service met in open session for nearly three hours on Sunday, April 27, 1969. A large number of the approximately 50 persons who attended the hearing expressed themselves on the various reports and resolutions assigned to the Reference Committee. Maximum opportunity was given for the presentation of information and opinion.

In addition, the Reference Committee invited several persons with particular responsibilities to participate in an executive session held at 9 a.m., Monday, April 28, 1969. It was arranged by the Reference Committee for the purpose of gaining clarification and elaboration on matters discussed Sunday.

Based on the preceding and on its own independent deliberations, the Reference Committee has developed the recommendations contained in this report. It should be pointed out that several of the items assigned to the Reference Committee concern the same subject. As a result, in an effort to avoid being overly repetitious, the Committee has combined items and recommendations when this seemed feasible. This Reference Committee's report represents the unanimous opinion of the members. There is no minority opinion.

SUPPLEMENTAL REPORT OF THE COMMITTEE ON LEGISLATION

With respect to federal legislation, your Reference Committee recognizes that the new Administration and the new Congress have been in office only a short period and that attempting a final evaluation of their eventual course at this time is unwise. Your Reference Committee does, however, wish to record its concern over recent ominous signs which have appeared on the national horizon. Reference is made to the April 17 public announcement of federally proposed reductions in Medicare and Medicaid pay-

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Adverse Reactions: *Central Nervous System*—Drowsiness, especially with large doses, early in treatment; infrequently, pseudoparkinsonism and other extrapyramidal symptoms; nocturnal confusion, hyperactivity, lethargy, psychotic reactions, restlessness, and headache. *Autonomic Nervous System*—Dryness of mouth, blurred vision, constipation, nausea, vomiting, diarrhea, nasal stuffiness, and pallor. *Endocrine System*—Galactorrhea, breast engorgement, amenorrhea, inhibition of ejaculation, and peripheral edema. *Skin*—Dermatitis and skin eruptions of the urticarial type, photosensitivity. *Cardiovascular System*—Changes in the terminal portion of the electrocardiogram have been observed in some patients receiving the phenothiazine tranquilizers, including Mellaril (thioridazine hydrochloride). While there is no evidence at present that these changes are in any way precursors of any significant disturbance of cardiac rhythm, several sudden and unexpected deaths apparently due to cardiac arrest have occurred in patients previously showing electrocardiographic changes. The use of periodic electrocardiograms has been proposed but would appear to be of questionable value as a predictive device. *Other*—A single case described as parotid swelling.

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Warning: In renal impairment, since liver toxicity is possible, lower doses are indicated; during prolonged therapy consider serum level determinations. Photodynamic reaction to sunlight may occur in hypersensitive persons. Photosensitive individuals should avoid exposure; discontinue treatment if skin discomfort occurs.

Precautions: Drowsiness, anorexia, slight gastric distress can occur. In excessive drowsiness, consider longer dosage intervals. Persons on full dosage should not operate vehicles. Nonsusceptible organisms may overgrow; treat superinfection appropriately. Treat beta-hemolytic streptococcal infections at least 10 days to help prevent rheumatic fever or acute glomerulonephritis. Tetracycline may form a stable calcium complex in bone-forming tissue and may cause dental staining during tooth development (last half of pregnancy, neonatal period, infancy, early childhood).

Adverse Reactions: *Gastrointestinal*—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. *Skin*—maculopapular and erythematous rashes; exfoliative dermatitis; photosensitivity; onycholysis, nail discoloration. *Kidney*—dose-related rise in BUN. *Hypersensitivity* reactions—urticaria, angioneurotic edema, anaphylaxis. *Intracranial*—bulging fontanels in young infants. *Teeth*—yellow-brown staining; enamel hypoplasia. *Blood*—anemia, thrombocytopenic purpura, neutropenia, eosinophilia. *Liver*—cholestasis at high dosage.

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ments for hospitalization and physicians' services. Your Reference Committee requests the Society officers who will visit Washington, D. C., in May to inform the Iowa congressional delegation of the Society's strong feeling that these proposals will serve only to restrict and erode further the private delivery of quality health care.

Mr. Speaker, I move the adoption of this portion of the report.

Your Reference Committee has evaluated the major state legislative items pertaining to health care, and in so doing has come to the realization that a true assessment of legislative accomplishments must await the completion of the second (1970) session of the Iowa General Assembly. It appears likely that several pending health-related legislative items will be deferred to the second or 1970 session. Your Reference Committee wishes to draw the attention of the House to the greatly increased amount of Society legislative activity resulting from the establishment of annual sessions. Your Reference Committee wishes to commend the efforts of the Committee on Legislation, the Legislative Contact Men and the other members of the Society legislative team, and it challenges all of these persons to continue their good work despite the accelerated pace. Your Reference Committee supports the contention that county medical societies and individual physicians need to become well-acquainted with their elected representatives. Your Reference Committee encourages the idea of inviting legislators periodically to meetings of county and state medical societies. We suggest that the Committee on Legislation be requested to stimulate this practice as part of its refined LCM program.

Mr. Speaker, I move the adoption of this portion of the report.

SUPPLEMENTAL REPORT OF THE COMMITTEE ON LEGISLATION

RESOLUTION NO. 5—INTRODUCED BY THE CARROLL COUNTY MEDICAL SOCIETY CHIROPRACTIC-SPONSORED LEGISLATION

Your Reference Committee has evaluated the practice-act revisions (SF 91) urged upon the 1969 Iowa General Assembly by certain chiropractic interests. Your Reference Committee endorses the sentiment expressed at the open hearing, i.e., that the proposed changes in the chiropractic practice act would pose a substantial threat to the health of Iowa citizens. Your Reference Committee is mindful of, and commends, the recent extensive grass-roots efforts of Iowa physicians to oppose this legislative proposal. Your Reference Committee reminds the House of its 1968 approval of a "Policy Statement on Chiropractic" which identified chiropractic as a "hazard to rational health care . . . because of the substandard and unscientific education of its practitioners and their rigid adherence to an irrational, unscientific approach to disease causation." The Reference Committee interprets the intent of the Carroll County resolution to be one of opposition to any extension of the chiropractic practice act. It recommends approval of Resolution No. 5, and in addition recommends support of the chiropractic portion of the supplemental report of the Committee on Legislation. Your Reference Committee recognizes the perennial nature of this legislation, and admonishes the Society to continue exerting all possible effort to thwart all forms of medical quackery.

Mr. Speaker, I move the adoption of this portion of the report.

SUPPLEMENTAL REPORT OF THE COMMITTEE ON LEGISLATION

RESOLUTION NO. 9—INTRODUCED BY THE POLK COUNTY MEDICAL SOCIETY PROFESSIONAL CORPORATIONS

Your Reference Committee heartily endorses the January action of the IMS Executive Council which called for Society sponsorship of professional-corporation legislation. Your Reference Committee is pleased that the Society has assumed a leadership role in promoting this legislation, which offers to the members of the named professions certain economic advantages now available to incorporated business and industry. Your Reference Committee is pleased to learn of the recent favorable action of the Senate Commerce Committee on this measure. Your Reference Committee urges the Society's legislative team to continue to exert full effort to secure passage of this legislation.

Mr. Speaker, I move the adoption of this portion of the report.

SUPPLEMENTAL REPORT OF THE COMMITTEE ON LEGISLATION

RESOLUTION NO. 4—INTRODUCED BY THE CARROLL COUNTY MEDICAL SOCIETY IOWA'S STATUTE REGARDING ABORTION

Your Reference Committee has carefully assessed the position adopted by the 1968 House of Delegates with respect to the question of therapeutic abortion. It is readily apparent that exhaustive and sincere thought has been given the matter by the physicians of Iowa. The assessment of your Reference Committee has included a review of the Society's involvement in the recent efforts to liberalize the state's abortion statutes. It also has included an evaluation of the comments which have come to the Society during this period. And further, it has included an analysis of the remarks made at the open hearing this year, and the deliberations of past years.

After thoughtfully evaluating these factors, your Reference Committee has concluded that the actions of the Committee on Legislation during this session of the General Assembly have been prudent and have been derived from policy developed on a democratic basis by the House of Delegates in 1968.

Your Reference Committee recognizes that bills on therapeutic abortion are certain to be introduced in forthcoming sessions of the Iowa General Assembly and may be supported by various groups. Your Reference Committee believes the medical profession has a vital responsibility to participate in these and future considerations.

Your Reference Committee believes further that the carefully-developed policy of the Society, as established by the 1968 House of Delegates, is realistic and represents the view of the majority of the physicians in the state.

Your Reference Committee sustains the recommendation of the Committee on Legislation, and urges

that the 1969 House of Delegates reaffirm the policy established by the 1968 House of Delegates.

Your Reference Committee believes that the preceding recommendation represents a response to Resolution No. 4.

[A roll call vote was requested on Resolution No. 4, and a secret ballot was conducted. The results were 86 "Aye" (in favor of adoption) and 23 "No."]

Mr. Speaker, I move the adoption of this portion of the report.

SUPPLEMENTAL REPORT OF THE SUBCOMMITTEE ON PUBLIC ASSISTANCE

Your Reference Committee is grateful to the Subcommittee on Public Assistance for providing the House up-to-date information on Title XIX in Iowa. With respect to the increasingly stringent federal guidelines which are being imposed in the various federal programs, your Reference Committee agrees with the Subcommittee that the Society should adopt a realistic philosophy in its negotiatons. Support for this position emanates from the passage of the Social Security Amendments of 1965, by which the federal government elected to establish programs providing needy persons with the resources to obtain medical care from private physicians and hospitals.

Mr. Speaker, I move the adoption of this portion of the report.

Your Reference Committee concurs with the Subcommittee that the Society (1) has a duty to acknowledge and explain the high cost of health care, and (2) has a responsibility to provide that leadership which will assure quality care for the citizens of Iowa.

Mr. Speaker, I move the adoption of this portion of the report.

Your Reference Committee is distressed over the fiscal condition of the Title XIX program in Iowa. It is pleased to have the Subcommittee's explanation of the reasons for (1) the shortage of funds and (2) the recent curtailment of services. On the basis of the fiscal information provided, your Reference Committee cannot help but sound a pessimistic note regarding the future of Title XIX. It is felt that all of the vendors, through the Medical Assistance Advisory Council and independently, with leadership provided by the medical profession, have a responsibility to the citizens of the State of Iowa to make Title XIX as effective a program for needy individuals as fiscal resources will allow.

Mr. Speaker, I move the adoption of this portion of the report.

Your Reference Committee hopes that it has served a useful purpose in bringing together for a frank discussion the principals involved in the matter of utilization and cost review under Title XIX. Those included representatives of the State Department of Social Services, the Title XIX carriers, and the Subcommittee on Public Assistance.

Out of these discussions have emerged recommendations which are supported by your Reference Committee. These recommendations are (1) that the medical profession, employing peer review, should have a principal role in adjudicating individual problems as identified by third parties; (2) that the Quality Assurance Program (QAP) recently established by Blue Shield (and described in Section Two of the Report of the Board of Trustees) has much to commend it and should be utilized in the implementation of Title XIX; (3) that the guidelines evolved by Blue Shield for use in QAP should be dynamic and responsive to changing patterns in the delivery of health care; (4) that although the designated state agency for Title XIX (the State Department of Social Services) has the final voice in disposing of cases submitted for adjudication, it should first exhaust the potential of the QA program, and the Iowa Medical Society's peer review process; and (5) the Subcommittee on Public Assistance should continue to serve its important liaison function with the State Department of Social Services and offer advice and counsel on problems.

Mr. Speaker, I move the adoption of this portion of the report.

For the record, your Reference Committee acknowledges receipt of information from the Subcommittee on (1) the probable mandatory retention of a private carrier for Title XIX; (2) the preliminary discussions of a proposal to have a private insurer underwrite the Iowa Title XIX program; and (3) the current efforts to strengthen the Title XIX Advisory Council.

Mr. Speaker, I move the adoption of this portion of the report.

In concluding its comments on the Supplemental Report of the Subcommittee on Public Assistance, your Reference Committee endorses the closing paragraph which charges the Society to retain its flexibility in face of federal pressure, and to assume a positive, optimistic posture in providing health care in a climate of optimum freedom to patient and practitioner.

Mr. Speaker, I move the adoption of this portion of the report.

SUPPLEMENTAL REPORT OF THE STATE CLAIMS REVIEW COMMITTEE

This Supplemental Report supports the preceding references to the importance and value of peer review. Your Reference Committee acknowledges that the system of claims review established by the Society in cooperation with the component county societies has worked effectively. It concurs that this approach represents a highly desirable method of assuring governmental agencies, third parties and the public that physicians are capable of regulating their own ranks and does in fact represent the best means of assuring high quality care at a reasonable cost.

Mr. Speaker, I move the adoption of this portion of the report.

Your Reference Committee is aware of the problems inherent in the payment of surgical and surgical assistants' fees. It is recognized that customs in this area vary in different parts of the state and that this variation further complicates the handling of these claims. Your Reference Committee endorses the action of the State Claims Review Committee in appointing a subcommittee to meet with the Medicare carrier to evaluate the administrative problems involved in payment of surgical and surgical assistants' fees. Your Reference Committee requests that a report of these deliberations be provided to either the Executive Council or the House of Delegates.

Mr. Speaker, I move the adoption of this portion of the report.

SUPPLEMENTAL REPORT OF THE STATE CLAIMS REVIEW COMMITTEE

RESOLUTION NO. 16—JOHNSON COUNTY MEDICAL SOCIETY DENIAL OF CARE IN EXTENDED-CARE FACILITIES

The complex matter of differentiating between medical care and custodial care under the Medicare and Medicaid programs was discussed in these two items, as well as in the Supplemental Report of the Subcommittee on Public Assistance. In each of them, concern was expressed over the periodic difficulty which arises when a local determination is overruled following an assessment of the case from a distant point. Your Reference Committee agrees with the State Claims Review Committee that physicians must be diligent in maintaining progress notes which clearly reflect the patient's clinical status in each of these long-term cases.

Mr. Speaker, I move the adoption of this portion of the report.

Your Reference Committee is cognizant of the strict federal guidelines which must be applied by the Medicare and Medicaid carriers in determining eligibility for reimbursement for medical and/or nursing care. Your Reference Committee recognizes the undesirable position in which the attending physician or utilization review committee is placed when a payment is denied. Your Reference Committee has been informed that clearly delineated mechanisms for appeal do exist in these cases, and it is recommended that all possible use be made of these by Johnson County in this particular instance, and by all others as the need arises.

Mr. Speaker, I move the adoption of this portion of the report.

Your Reference Committee acknowledges the gravity of this entire subject. It has been advised that discussions have occurred very recently between the Society and Blue Cross/Blue Shield which have as their objective an educational program to help physicians better understand the federal provisions which pertain in this area. Your Reference Committee commends this effort and urges that it be carried forward expeditiously. Your Reference Committee urges the several committees concerned to keep abreast of this problem, to follow it closely and make recommendations, as appropriate, to the Executive Council.

Mr. Speaker, I move the adoption of this portion of the report.

RESOLUTION NO. 2—INTRODUCED BY THE POTTAWATTAMIE COUNTY MEDICAL SOCIETY COMPULSORY IMMUNIZATION OF CHILDREN

On this resolution, your Reference Committee heard considerable testimony presented by its sponsor and by others. It heartily agreed that the administration of the now-accepted immunizations is vitally important to the individual child as well as to the community as a whole. Your Reference Committee is aware of the study of this matter which has been conducted by the Society's Subcommittee on Maternal and Child Health. The information provided this Subcommittee indicates, however, that there is approximately the same level of immunization among citizens of states without compulsory laws as among people in states with such statutes. Your Reference Committee was informed that several Iowa communities have effective voluntary immunization programs. Your Reference Committee commends the county society which submitted this resolution for its long-standing interest in this problem, and encourages it to carry out the mandate it has set forth—namely, to work with the local board of health, chamber of commerce, etc., in pursuit of an even more effective program of immunization at the community level.

Your Reference Committee supports the recommendation of the Society's Subcommittee on Maternal and Child Health which encourages and supports public educational programs at the local level designed to immunize voluntarily the largest possible segment of the population.

Mr. Speaker, I move the adoption of this portion of the report.

RESOLUTION NO. 6—INTRODUCED BY THE DES MOINES COUNTY MEDICAL SOCIETY DUTIES AND COMPENSATION OF COUNTY MEDICAL EXAMINER

Your Reference Committee has been told that the Iowa Senate has passed legislation (SF 585) relaxing the responsibility which the county medical examiner now has for the disposition of the personal effects of the decedent. Your Reference Committee recommends that the Society seek the passage of this legislation, and allow time for an assessment of the liberalization provision.

Mr. Speaker, I move the adoption of this portion of the report.

With respect to a more realistic compensation arrangement for medical examiners, as urged in the second resolve in Resolution No. 6, your Reference Committee has been told that the previously mentioned legislation abolishes the existing rigid payment level and contains contracting provisions with Boards of Supervisors of the various counties. Here again, your Reference Committee responds to Resolution No. 6 by urging Society support for the enactment of Senate File 585.

Mr. Speaker, I move the adoption of this portion of the report.

HANDBOOK REPORT OF THE SUBCOMMITTEE ON MEDICAL EXAMINER LAW

Your Reference Committee has reviewed with interest the report of the special subcommittee appointed to evaluate the state medical examiner law. Your Reference Committee wishes to commend the efforts of the subcommittee, and it recommends that it pursue the development of a more effective Iowa Medical Examiner Law.

Mr. Speaker, I move the adoption of this portion of the report.

Your Reference Committee has been informed that Senate File 585, previously mentioned, contains provisions which have been recommended by the Subcommittee and sustained by the IMS Executive Council. The legislative proposal calls for the establishment of a state crime-forensic toxicology laboratory to be under the direction of a state medical examiner. Your Reference Committee is aware of the close attention which the Subcommittee is giving to this legislation, and it urges that this surveillance be continued until passage of the proposal is secured.

Mr. Speaker, I move the adoption of this portion of the report.

RESOLUTION NO. 7—INTRODUCED BY THE DES MOINES COUNTY MEDICAL SOCIETY
UNIFORM ANATOMICAL GIFTS ACT

Your Reference Committee supports this resolution which commends the Society for its efforts to secure passage of a uniform anatomical gifts act by the Iowa General Assembly. Your Reference Committee understands that this sound legislation has been patterned after a model act developed at the national level by the legal and medical professions.

Mr. Speaker, I move the adoption of this portion of the report.

HANDBOOK REPORT OF THE COMMITTEE ON ORGAN TRANSPLANTATION

This HANDBOOK report also calls for Society support of the legislation advocated in Resolution No. 7. The Committee on Organ Transplantation cites the importance of this legislation in the rapidly emerging area of organ transplantation.

Your Reference Committee supports the several additional recommendations advanced by the Committee in its HANDBOOK report—namely, (1) that the Society study the means which are developing for the financial support of patients who require this special form of treatment; (2) that the Society be involved particularly in any exploration of sources of financing by state government; and (3) that the Society endorse the Ethical Guidelines for Organ Transplantation approved by the AMA House of Delegates in 1968.

Mr. Speaker, I move the adoption of this portion of the report.

RESOLUTION NO. 10—INTRODUCED BY THE JOHNSON COUNTY MEDICAL SOCIETY
SUPPORT FOR DIPLOMA SCHOOLS OF NURSING

Your Reference Committee believes that all possible support should be given accredited nursing-education programs. Your Reference Committee is aware that three baccalaureate programs in nursing are operative in Iowa; that there are 18 three-year diploma nursing programs affiliated with Iowa hospitals; and that there are two two-year (associate degree) nursing programs in the state. It is further understood that one additional baccalaureate nursing program is in the formative stage, as are two associate degree programs. The two-year nursing-education concept has existed for a relatively short time, and the evaluation of that program remains incomplete. Your Reference Committee believes that the abilities of both baccalaureate and diploma nurses have been well established, and that there is a distinct place for both. Your Reference Committee is of the opinion that the capability of a nurse is a matter for individual assessment, and may not necessarily be related to whether or not she completed a three- or a four-year program.

Your Reference Committee recommends that this resolution be referred to the Board of Trustees, with the stipulation that careful attention be given by the Society to maintaining and strengthening all existing nursing education programs in the state.

Mr. Speaker, I move the adoption of this portion of the report.

HANDBOOK REPORT OF THE COMMITTEE ON BLOOD BANKING

Your Reference Committee believes it desirable to reiterate the plea of the Committee on Blood Banking with respect to the urgent need for physician assistance in the replacement of blood supplies. Your Reference Committee urges members of the House to exercise local leadership in the procurement of blood supplies.

Mr. Speaker, I move the adoption of this portion of the report.

Your Reference Committee notes the interest of the Committee on Blood Banking in regard to the threat of possible liability with respect to the administration of blood. It also understands the Committee's concern over the possibility that the administration of blood and transfer of human tissue may be regarded as the sale of a product and not a service. Your Reference Committee has been informed that a provision included in the uniform anatomical gifts bill (HF 305) clearly eliminates the threat of implied warranty. Your Reference Committee believes it would be in the best interests of all for the Society to promote the passage of this legislation.

Mr. Speaker, I move the adoption of this portion of the report.

HANDBOOK REPORT OF THE COMMITTEE ON ONCOLOGY

Your Reference Committee Committee supports the action of the IMS Executive Council in approving a modified version of the three-year Comprehensive Cancer Morbidity Study to be carried out in Iowa through the Iowa Central Tumor Registry. As explained in the HANDBOOK report, the modified proposal eliminates the social and economic aspects of the study which caused substantial concern during an initial review.

Mr. Speaker, I move the adoption of this portion of the report.

Mr. Speaker, I move the adoption of this report as a whole, as corrected.

Respectfully submitted,
R. P. FERGUSON, M.D., *Chairman*
L. J. FLAGE, M.D.
A. S. NORRIS, M.D.
G. R. CLARK, M.D.
D. A. HARDING, M.D.

BLUE SHIELD

The Blue Shield Reference Committee held an open hearing at 2:50 p.m. on April 27, 1969, following the first session of the 1969 House of Delegates of the Iowa Medical Society. Members of the Blue Shield Board of Directors and of the Blue Shield executive staff, and members of the Medical Society were in attendance to participate in the discussion. Following this discussion, the Committee met in executive session. A consultative meeting was held on April 28 at 9:00 a.m. with members of the Reference Committee on Legislation and Medical Service, representatives of Blue Cross/Blue Shield, legal counsel and administrative staff, together with a representative from the Department of Social Services. A second executive session was held at 2:00 p.m. on April 28.

The Committee considered the Supplemental Re-

port of the Board of Trustees, Section II, and Resolution No. 18 introduced by the Jefferson County Medical Society.

SUPPLEMENTAL REPORT OF TO THE BOARD OF TRUSTEES BLUE SHIELD REPORT—SECTION II

The contributions of the living were acknowledged, as well as the contributions of Dcotor George H. Scanlon and his wide involvement in medicine.

The Reference Committee feels that cooperation between the participating members of the Medical Society, the Board of Trustees and Blue Shield should be continued with an openness of discussion of problems. This is illustrated by a joint meeting which was held on the morning of April 28, 1969 in discussing the Usual, Customary and Reasonable (UCR) concept which overlaps into Medicare, Title XIX, as well as the private sector of medicine. At this meeting the Quality Assurance Program was discussed in depth.

Mr. Speaker, I move the adoption of this portion of the report.

USUAL, CUSTOMARY AND REASONABLE CONTRACT

Much of the time of the Committee was devoted to the consideration of the Usual, Customary and Reasonable (UCR) Contract. This has been effective at the national level. Certain features of this are extremely important to each individual physician because the claim review program is directed by his peers, and no distinction exists between participating and nonparticipating physicians except in those areas where there is differentiation by policy.

The Committee recommends to the House of Delegates that Blue Shield be empowered to write an intrastate UCR Contract embodying the principles which have already been enunciated in the interstate (national) contract.

Mr. Speaker, I move the adoption of this portion of the report.

CONTRACT MODIFICATIONS

The Master Complementary Contract for Medicare participants (Comprehensive 65) has been effective in meeting a need, and Blue Shield has sold a considerable number of such policies to the public. The other contract modifications (covering home and office visits, consultations, extended-care facilities, diagnostic x-ray and laboratory, physical therapy, and vaccinations, immunizations and injections) which were presented to Blue Shield by the 1968 House of Delegates have been used to a limited extent. These are effective in certain contracts, but do not have a wide appeal in the market place at the present time. When employed, these have been effective in reducing the cost of care.

The Reference Committee feels that Blue Shield should ultimately aim at contracts which are all based on the UCR concept. This would mean a gradual withdrawal of lower-level contracts from the market place and diminution of the Comprehensive contract.

Mr. Speaker, I move the adoption of this portion of the report.

QUALITY ASSURANCE

The Quality Assurance Program (QAP) instituted by Blue Shield is supported by the Reference Committee. The Committee feels that this can be extended from the area of private medicine to governmental programs. The four main areas of QAP are (1) Educational Literature Distribution, (2) Pre-Payment Claims Review, (3) Post-Payment Statistical Evaluation, and (4) Random Sampling Technique. It should be pointed out to the House of Delegates that the Random Sampling Technique is mainly a matter of internal review and audit, but to a lesser degree it has been used in evaluating the quality of care through interrogating the patient and/or physician.

Mr. Speaker, I move the adoption of this portion of the report.

The Reference Committee feels that QAP should be extended to the area of studying quality where under-utilization of medical facilities and medical services may be involved. Consultation with Blue Shield indicates that certain guidelines can also be established which could be an effective measure in the determination of quality care.

Mr. Speaker, I move the adoption of this portion of the report.

FIELD SERVICE PROGRAM

The integrated IMS/BS Field Service Program has proved very effective during its one year's existence. Its success has stimulated inquiries from other medical societies and Blue Shield Plans that are considering the establishment of similar programs for themselves. The Reference Committee encourages the Iowa Medical Society to continue its support of this Program in all areas.

Mr. Speaker, I move the adoption of this portion of the report.

PHYSICIAN SERVICES CENTER

The Reference Committee wishes to call the attention of the entire Iowa Medical Society to the Physician Services Center which has been established to answer inquiries from physicians and is staffed by trained personnel. Physicians' inquiries are directed to it so that accurate and prompt information can be provided. This Center will shortly mail a Physicians Reference Manual to individual practicing physicians and groups.

Mr. Speaker, I move the adoption of this portion of the report.

NATIONAL ASSOCIATION OF BLUE SHIELD PLANS' MEMBERSHIP STANDARDS

The Reference Committee commends the Society for its efforts in making certain that every Blue Shield Plan must have the approval of a medical society—that NABSP membership standards now indicate that "A Plan shall have substantial support of the medical profession, evidence of which shall be approval of the Plan by the appropriate medical society or societies."

Mr. Speaker, I move the adoption of this portion of the report.

BLUE SHIELD INFORMATIONAL MEETINGS

The Reference Committee desires the House of Delegates to encourage constituent county societies, multi-county societies or area medical groups to schedule a meeting within the next two years, which will be devoted to the Blue Shield Program, including such areas as Quality Assurance and utilization

review. It is also suggested that a program of this nature could be presented to a hospital staff.

Mr. Speaker, I move the adoption of this portion of the report.

RESOLUTION NO. 18—INTRODUCED BY THE JEFFERSON COUNTY MEDICAL SOCIETY BLUE SHIELD ASSIGNMENT

In Resolution No. 18 the Jefferson County Medical Society proposed that the Iowa Medical Society request Blue Shield to allow patients to assign insurance benefits to non-participating doctors. The Reference Committee heard testimony from Blue Shield officials giving the historical background of the Blue Shield Program and the reasons why the Blue Shield Board of Directors has not recognized assignments of benefits to non-participating physicians.

Resolution No. 18 speaks to one of the core issues surrounding a physician's individual decision on whether or not to become a participating physician in Blue Shield. On many occasions this House of Delegates has encouraged Iowa physicians to participate in Blue Shield, but has always left the final decision to the individual doctor.

Blue Shield differs from most health insurance carriers in several ways, but most importantly it contracts first with physicians for the provision of full service, and subsequently contracts with a subscriber for these services.

By becoming a participating physician a doctor accepts certain obligations, including acceptance of prorated fees as full service if Blue Shield were to experience fiscal difficulty. Participating physicians have agreed to accept as a maximum fee those charges allowed under the Blue Shield contract where the subscriber's income and net worth are less than that stated in the type of policy he possesses. He also gives of his time in the adjudication of claims, serves on the Blue Shield Board and has the opportunity to participate in setting policies that best meet the needs of the people of Iowa. These services are important to all Iowans. The Iowa Medical Society benefits by close observation of the activities of Iowa's largest health carrier. The participating physician's only personal benefit is direct payment on Blue Shield claims.

If a non-participating physician were permitted to accept assignment on individual cases, he would be in a position to pick and choose those instances where he wishes to receive direct payment from Blue Shield, rather than have a payment go to the subscriber. The Reference Committee believes this would give non-participating physicians an unfair advantage over participating physicians.

Earlier in the report, the Reference Committee pointed out that Blue Shield contracts are rapidly being converted to the usual, customary and reasonable concept, and the low-level contracts are being eliminated. Therefore the number of Blue Shield cases which would pay the doctor less than his usual and customary fee would be at a minimum.

The Reference Committee still strongly believes that each individual physician should be free to determine whether or not he wishes to participate in Blue Shield. It would seem to be a reasonable and fair alternative for non-participating doctors who wish to accept assignments to consider becoming participating physicians.

For these reasons the Committee feels that Resolution No. 18 should not be adopted.

Mr. Speaker, I move the adoption of this portion of the report.

Mr. Speaker, I move the adoption of this report as a whole.

Respectfully submitted,
L. J. O'BRIEN, M.D., *Chairman*
P. M. CMEYLA, M.D.
H. R. LIGHT, M.D.
F. M. ASHLER, M.D.
T. F. DYNES, M.D.

REPORTS OF OFFICERS

The Reference Committee on Reports of Officers met at 3 p.m. on Sunday, April 27, 1969. A representative of the Sac County Medical Society appeared before the Committee to provide supplemental information regarding Resolution No. 14 (Change in Format and Function of Annual State Medical Meeting); the president, the chairman of the Board of Trustees and the executive vice-president of the IMS also commented on the Resolution, as well as other items under consideration by the Committee.

The Committee offers the following recommendations to the House of Delegates for its consideration and action.

REMARKS OF C. W. SEIBERT, M.D.—IMS PRESIDENT

Dr. Seibert is commended for his excellent philosophic discussion with respect to "change" as it relates to medicine.

Consistent with the remarks and specific recommendations of the president on the subject of medical manpower, the Committee endorses fully the efforts of the Society's Task Force on Medical Manpower; supports the contemplated program of fall regional meetings at which physicians and other community leaders will consider problems related to medical manpower and the delivery of medical care; and requests the Task Force to carry forward and expand its work.

Mr. Speaker, I move the adoption of this portion of the report.

The Committee joins with Dr. Seibert in acknowledging the substantial contribution which the Scanlon Medical Foundation has made in the field of medical education, and urges the Foundation's Board of Directors to seek out new ways of serving in the broad area of medical manpower.

Mr. Speaker, I move the adoption of this portion of the report.

In line with a final proposal of the president, the Committee recommends that any interesting and innovative ideas presented at the General Session program on Monday, April 28, concerning the delivery of medical care to the rural community, be referred to appropriate officials or committees of the Society for further exploration and consideration.

Mr. Speaker, I move the adoption of this portion of the report.

SUPPLEMENTAL REPORT OF THE BOARD OF TRUSTEES GENERAL ACTIVITIES—SECTION I

Section I of the Board of Trustees Supplemental Report focused attention on many of the important projects of the IMS. The Board of Trustees deserves appreciation and praise from the membership for its outstanding direction of Society programs and its business affairs.

Mr. Speaker, I move the adoption of this portion of the report.

The Committee agrees with the Board of Trustees that the House of Delegates should continue to support an active and strong Medical Society organization, so that the medical profession can maintain its position of leadership in providing and planning for the health care of the people of Iowa. For after all, the IMS is, and should be, the voice of medicine in this state.

Mr. Speaker, I move the adoption of this portion of the report.

SUPPLEMENTAL REPORT OF THE BOARD OF TRUSTEES FINANCES—SECTION III

The Committee is pleased to note that the building mortgage is being amortized at an accelerated rate; that continuing efforts are being made to conserve JOURNAL expenses, and that despite the prospect that additional funds will be necessary to carry out vital legislative activities, the budget established by the Board for 1969 contemplates a net income in excess of expenses. Congratulations! The Committee happily and wholeheartedly endorses the Board's recommendation that there be no change in the State Society dues' structure for 1970.

Mr. Speaker, I move the adoption of this portion of the report.

Considerable discussion was devoted to the Board's proposal to study the possibility of separating the annual scientific sessions from the annual meetings of the House of Delegates. The Committee recommends that the Board of Trustees be authorized to explore, with appropriate officials and staffs of neighboring state medical societies, the desirability and feasibility of combining scientific meetings with those of neighboring state societies on an "alternate host" basis, with the understanding that each participating state medical society would continue to schedule and arrange its own House of Delegates sessions.

Mr. Speaker, I move the adoption of this portion of the report.

During the Reference Committee hearing, specific reference was made to the operation of the House of Delegates, and considerable attention was given to methods of stimulating increased interest in the affairs of the IMS and in annual meetings of the House, not only by delegates but by all other members of the Society. Discussion on this matter was stimulated by remarks in support of Resolution No. 14, made by a representative of the Sac County Medical Society.

Specifically, the Committee recommends that the Board of Trustees explore ways and means:

(1) To emphasize to the delegates their duties and responsibilities, and to clearly define what a delegate is expected to do, both during a House of Delegates session, and in the interim between annual sessions. In this regard, it was the feeling of the Committee that perhaps we are not utilizing the talents and knowledge of delegates to the fullest extent possible, and we should—and can—expect more from them as a liaison between the IMS and their county medical societies. Consideration might be given to encouraging delegates to appear before the Executive Council, or other bodies of the IMS, to discuss projects or issues of particular interest or importance to the physicians they represent. In this effort, it is recognized that it is also important to involve other county medical society officers, as well as delegates.

(2) To open the structure for a productive exchange of ideas and information between the IMS and the delegates; and between the delegates and their constituents.

In this regard, the Committee underscores the fact that the present reference committee structure at the annual meeting is, actually, an "open forum" to which any member can come to "speak his piece."

(3) To provide reference committee members more time, if possible, to study the items to be considered by the committees—e.g., announcement of all reference committee assignments prior to an annual meeting, and distribution of available supplemental reports and "late" resolutions to appropriate reference committee members several days prior to the meeting.

(4) To remind—or educate—the general membership about the structure of organized medicine, and how its constitutional, representative government functions. "Outside" advice and assistance might be utilized, if deemed necessary and appropriate.

Specific recommendations of the Board of Trustees with respect to implementing these suggestions should be referred to the Executive Council or to the House of Delegates next April, depending on the timing.

Mr. Speaker, I move the adoption of this portion of the report.

RESOLUTION NO. 14—INTRODUCED BY THE SAC COUNTY MEDICAL SOCIETY CHANGE IN FORMAT AND FUNCTION OF ANNUAL STATE MEDICAL MEETING

Although we are reporting on this item last, this resolution and the supplemental information regarding it served as background for our discussion, and led to some of the Committee's recommendations relating to the annual sessions and the role of the delegates. The Committee recommends Resolution No. 14 not be adopted.

Mr. Speaker, I move the adoption of this portion of the report, as amended.

In conclusion, the Committee wishes to commend the president and the Board of Trustees for their succinct, but comprehensive, reports. The Committee is of the opinion that reading these reports at the opening session serves a valuable and stimulating function for the House of Delegates.

Mr. Speaker, I move the adoption of this portion of the report.

Mr. Speaker, I move the adoption of this report as a whole, as amended.

Respectfully submitted,
H. L. SKINNER, M.D., *Chairman*
K. A. GARBER, M.D.
M. H. DUBANSKY, M.D.
M. E. OLSEN, M.D.
G. C. MCGINNIS, M.D.

JUDICIAL COUNCIL

The Judicial Council of the Iowa Medical Society, meeting as a Reference Committee of the House of Delegates had just one piece of business to consider.

RESOLUTION NO. 1—INTRODUCED BY THE POTTAWATTAMIE AND MILLS COUNTY MEDICAL SOCIETIES HYPHENATION OF THE POTTAWATTAMIE AND MILLS COUNTY MEDICAL SOCIETIES

Your Judicial Council was asked to pass upon this "hypenation," and that organized medicine in that

area henceforth be known as "The Pottawattamie-Mills County Medical Society." The resolution further proposed that the Pottawattamie and the Mills County physicians retain their separate representations in the IMS House of Delegates, and that they reserve the right to withdraw from their alliance if future circumstances warrant their doing so.

The Council conducted an open hearing at which two physicians from one of the two counties and the councilor for the affected district asked for the Council's endorsement of the hyphenation.

The Judicial Council agreed that there was no impediment to the hyphenation of these two medical societies, and it therefore recommends the adoption of Resolution No. 1.

Mr. Speaker, I move the adoption of this report as a whole.

Respectfully submitted,
J. F. BISHOP, M.D., *Chairman*
OSCAR ALDEN, M.D.
L. D. CARAWAY, M.D.
G. A. FRY, M.D.
E. E. GAMET, M.D.
C. L. KELLY, JR., M.D.
E. A. LARSEN, M.D.
H. G. MARINOS, M.D.
J. M. RHODES, M.D.
H E. RUDERSDORF, M.D.
C. A. TRUEBLOOD, M.D.

The Speaker then asked whether there was any new business to come before the House. Dr. Wallace Rindskop offered a resolution that the 1971 annual meeting of the Iowa Medical Society be held in Des Moines on April 25-28. It was adopted.

Dr. Schlaser made a motion that the House of Delegates approve the actions of the IMS Board of Trustees from the date of the last previous annual meeting. The motion, which was worded as follows, was seconded and adopted:

Resolved, That the actions of the Board of Trustees of the Iowa Medical Society from the date of the last annual meeting to the present be and hereby are ratified and confirmed.

Dr. Schlaser then continued: "Mr. Speaker, I have the pleasant task of offering another motion to the House of Delegates. One could introduce this motion by a lengthy laudatory statement but I simply want to say personally and on behalf of the other officers of the Society how much we have enjoyed working with our president, Dr. Cecil Seibert, and I am sure this opinion is shared by this House of Delegates, as has already been expressed."

Dr. Kersten expressed the thanks of the delegates for the Medical Assistants Association's serving coffee at the Sunday morning meeting.

Dr. Seibert was then recognized and made the following remarks: "Mr. Speaker, Members of this House: I think it should be pointed out that this is the last appearance before this House of our speaker, Dr. Paul Kersten. He did not stand for re-election; he is going to take a sabbatical and do what I think everybody has always wanted to do. But, as I have observed him in the years he has been here, he has done a tremendous job, and I would like a rising vote of thanks for him."

The Speaker then announced that the organizational meeting of the Board of Trustees would be held immediately following the adjournment of the House of Delegates, and that the organizational meeting of the Judicial Council would occur at that time too. He also reminded the delegates that the installation of the new president of the IMS would occur following the formal adjournment and prior to those other two meetings.

The meeting was adjourned at approximately 11:55 a.m.

Fifty Year Club Members

JUNE 1, 1969

Ash, William E. Council Bluffs

Banton, Oscar H. Charles City
Bartlett, George E. New Sharon
Billingsley, John W. Newton
Blaha, George A. Whitten
Block, Charles E. Davenport
Bowie, Louis L. Zearing
Braunlich, George Davenport
Brereton, Harold L. Emmetsburg
Brinkman, William F. Pocahontas
Broderick, Clarence E. Cherokee
Bullock, William E. Lake Park
Burke, Thomas A. Mason City

Carstensen, Albert B. Linn Grove
Christensen, John R. Menlo Park, California
Clapsaddle, John G. Burt
Closson, Charles L. Walker
Commey, Roy M. Tujunga, California
Cooper, Gladys A. Lansing, Michigan
Crawford, Robert H. Burlington
Cretzmeyer, Francis X. Emmetsburg
Crew, Arthur E. Marion
Crow, George B. Burlington
Cusick, George W. Davenport

Doane, Grace O. Des Moines
Downing, Leroy M. Cedar Rapids
Dyson, James E. Phoenix, Arizona

Egermayer, George W. Elliott
Eggleston, Alfred A. Burlington
Feightner, Robert L. Fort Madison

Fillenwarth, Floyd H. Charles City
Fordyce, Frank W. Des Moines

Foster, Warren H. Clinton
Foster, Wayne J. Cedar Rapids
Frank, Owen L. Maquoketa
Fraser, John H. Monticello

Gearhart, George W. Springville
Gernsey, Merritt Long Beach, California
Gibson, Paul E. Des Moines
Goggin, John G. Ossian
Gottsch, Erwin J. Shenandoah
Gutch, Roy C. Knoxville, Tennessee

Hamilton, Benjamin F. Jefferson
Hansen, Robert R. Marshalltown
Harken, Conreid R. Osceola
Harris, Ray R. Dubuque
Henkin, John H. Sioux City
Herrmann, Christian H. Middle
Hill, Julia Ford Grinnell
Hopkins, David H. Des Moines
Hornaday, William R., Sr. Des Moines

Ingham, Paul G. Mapleton

Jenkinson, Harry R. Iowa City
Jerdee, Ingebrecht C. Clermont
Johann, Albert E. Des Moines
Johnston, Helen Des Moines
Jongewaard, Albert J. Jefferson

Keech, Roy F. Cedar Rapids
Kershner, Frank O. Clinton
Kiesling, Harry F. Lehigh
Kimball, John E. West Liberty
Kleinberg, Henry E. Des Moines
Knight, Benjamin L. Cedar Rapids

Loving, Luther W. Estherville

McBride, Robert H. Sioux City
McCoy, Harold J. Des Moines
McCreight, George C. Carmel Valley, California
McHugh, Charles P. Ft. Lauderdale, Florida
McVay, Melvin J. Lake City
Magee, Emery E. Cedar Falls
Maplethorpe, Charles W., Sr. Toledo
Marker, John I. Davenport
Maxwell, Charles T. Sioux City
Mellen, Robert G. Clinton
Meyers, Frank W. Dubuque
Mitchell, Claire H. Cincinnati
Moershel, Henry G. Homestead
Murray, Frederick G. Des Moines

Neal, Emma J. Cedar Rapids
Neuzil, William J. Cedar Rapids

O'Brien, Stephen A. Mason City

Palmer, Carson W. Guttenberg

Pearson, George J. Burlington
Rankin, William Keokuk
Reuber, Roy N. Mason City
Rock, J. Emmet Bettendorf
Rohrbacher, William M. Iowa City
Rowley, William G. Sioux City
Royal, Malcolm A. Des Moines
Ruth, Verl A. Des Moines

Saar, Jesse L. Laguna Hills, California
Schnug, George E. Dows
Senska, Frank Iowa City
Senty, Elmer G. Davenport
Severson, George J. Slater
Simmons, Ralph R. Bloomfield, Connecticut
Smith, J. Ned Iowa City
Snyder, Raleigh R. Des Moines
Strawn, John T. Vinton

Tait, John H. Des Moines
Taylor, Robert S. Davenport
Teufel, John C. Davenport
Thomas, Clyde E. Croton-on-Hudson, New York
Thomas, Colin G. Monticello
Thompson, Kenneth L. Oakland
Thornton, John W. Lansing
Traister, John E. Eddyville
Trey, Bernard L. Marshalltown

Van Camp, Thomas H. Breda
Van Metre, Paul W. Rockwell City
Victorine, Edward M. Cedar Rapids
Vineyard, Thomas L. Ottumwa
Voigt, Ernest J. Mediapolis

Walker, Thomas S. Riceville
Watts, A. Fred Creston
Watts, Clyde F. Marengo
Weber, William W. Pomeroy
Weston, B. Raymond Mason City
Whitaker, Ben T. Boone
Wilcox, Edgar B. Oskaloosa
Wilson, Fredric L. Eugene, Oregon
Wurtzer, Ezra L. Clear Lake

Young, Howard O. Estherville

COUNTY SOCIETY OFFICERS

COUNTY	PRESIDENT	SECRETARY	DEPUTY COUNCILOR
Adair	A. J. Gantz, Greenfield	A. J. Gantz, Greenfield	A. J. Gantz, Greenfield
Adams	C. L. Bain, Corning	J. C. Nolan, Corning	J. C. Nolan, Corning
Allamakee	L. B. Bray, Waukon	B. R. Withers, Waukon	C. R. Rominger, Waukon
Appanoose	F. B. Leffert, Centerville	E. F. Ritter, Centerville	E. A. Larsen, Centerville
Audubon	H. K. Merselis, Audubon	R. L. Bartley, Audubon	H. K. Merselis, Audubon
Benton	C. E. Douglas, Belle Plaine	S. L. Anthony, Vinton	
Black Hawk	Fred Dick, Waterloo	G. M. Vandervelde, Waterloo	R. L. Hadlund, Waterloo
Boone	J. R. Hill, Boone	J. R. Anderson, Boone	E. E. Linder, Ogden
Bremer	J. W. Rathe, Waverly	W. E. Hall, Waverly	R. E. Shaw, Waverly
Buchanan	N. L. Hersey, Independence	C. F. McClure, Independence	P. J. Leehey, Independence
Buena Vista	W. E. Erps, Storm Lake	J. A. Cornish, Storm Lake	R. R. Hansen, Storm Lake
Butler	F. A. Rolfs, Aplington	F. F. McKean, Allison	F. F. McKean, Allison
Calhoun	R. P. Ferguson, Lake City	J. C. Comstock, Lake City	G. S. Rost, Lake City
Carroll	R. Q. Christensen, Carroll	J. E. McGill, Carroll	J. M. Tierney, Carroll
Cass	E. M. Juel, Atlantic	J. D. Weresh, Atlantic	E. M. Juel, Atlantic
Cedar	G. H. Utley, Clarence	O. E. Kruse, Tipton	G. H. Utley, Clarence
Cerro Gordo	J. F. Paulson, Mason City	B. J. Broghammer, Mason City	H. G. Marinos, Mason City
Cherokee	T. M. Gary, Cherokee	R. J. Martin, Cherokee	H. J. Fishman, Cherokee
Chickasaw	C. W. Clark, Nashua	J. C. Carr, New Hampton	
Clarke	G. B. Bristow, Osceola	E. E. Lauvstad, Osceola	G. B. Bristow, Osceola
Clay	F. D. Edington, Spencer	L. F. Frink, Spencer	G. F. Fieselmann, Spencer
Clayton	D. W. Hurlbut, Elkader	E. M. Downey, Guttenberg	
Clinton	W. R. Meyer, Clinton	J. F. Holl, Clinton	M. E. Barrent, Clinton
Crawford	R. A. Huber, Charter Oak	J. M. Hennessey, Manilla	C. H. Fee, Denison
Dallas-Guthrie	P. L. Weigel, Van Meter	K. M. Chapler, Dexter	A. G. Felter, Van Meter (D) W. A. Seidler, Jamaica (G)
Davis	M. D. Pabst, Bloomfield	J. R. Scheibe, Bloomfield	J. R. Scheibe, Bloomfield
Decatur-Ringgold	T. R. Viner, Leon	E. E. Gamet, Lamoni	E. E. Gamet, Lamoni (D) D. E. Mitchell, Mount Ayr (R)
Delaware	W. J. Willett, Manchester	R. L. Waste, Manchester	J. E. Tyrrell, Manchester
Des Moines	C. B. Nessa, Burlington	J. J. McElwain, Burlington	R. B. Allen, Burlington
Dickinson	C. L. Plott, Spirit Lake	J. O. Moermond, Jr., Spirit Lake	
Dubuque	R. V. McKay, Jr., Dubuque	J. A. Kaufman, Dubuque	J. S. Chapman, Dubuque
Emmet	R. L. Cox, Estherville	A. E. Montgomery, Estherville	R. L. Cox, Estherville
Fayette	H. H. Wolf, Elgin	Scott Linge, Fayette	A. F. Grandinetti, Oelwein
Floyd	H. A. Tolliver, Charles City	R. G. Barrett, Rockford	E. V. Ayers, Charles City
Franklin	R. J. Lynn, Hampton	R. E. Munns, Hampton	W. L. Randall, Hampton
Fremont		A. R. Wanamaker, Hamburg	K. D. Rodabaugh, Tabor
Greene	G. F. Canady, Jefferson	A. A. Knosp, Jefferson	E. D. Thompson, Jefferson
Grundy	Varina Des Marias, Grundy Center	G. D. Button, Conrad	J. E. Rose, Grundy Center
Hamilton	D. C. Anderson, Stanhope	E. K. Lowary, Webster City	G. A. Paschal, Webster City
Hancock-Winnebago	J. R. Camp, Britt	S. M. Haugland, Lake Mills	J. R. Camp, Britt
Hardin	R. W. Dunlay, Iowa Falls	L. F. Parker, Iowa Falls	L. F. Parker, Iowa Falls
Harrison	A. C. Bergstrom, Missouri Valley	R. G. Wilson, Missouri Valley	A. C. Bergstrom, Missouri Valley
Henry	B. D. Hartley, Mt. Pleasant	W. B. Scott, Mt. Pleasant	J. S. Jackson, Mt. Pleasant
Howard	P. A. Nierling, Cresco	D. A. Nierling, Cresco	P. A. Nierling, Cresco
Humboldt	A. S. Arent, Humboldt	J. H. Coddington, Humboldt	
Ida	E. J. Stine, Jr., Ida Grove	J. B. Dressler, Ida Grove	
Iowa	D. P. Waters, Williamsburg	L. A. Miller, II, North English	C. F. Watts, Marengo
Jackson	C. L. Rask, Maquoketa	R. D. Dempewolf, Bellevue	J. A. Broman, Maquoketa
Jasper	H. A. Van Hofwegen, Newton	R. H. Bobenhouse, Newton	J. W. Ferguson, Newton
Jefferson	J. H. Dunlevy, Fairfield	W. C. Baumann, Fairfield	J. W. Castell, Fairfield
Johnson	C. E. Schrock, Iowa City	G. R. Zimmerman, Iowa City	G. W. Howe, Iowa City
Jones	G. F. Brown, Anamosa	J. L. Bailey, Anamosa	L. D. Caraway, Monticello
Keokuk	Opas Jutabha, Sigourney	Puangtong Jutabha, Sigourney	E. R. Gann, Sigourney
Kossuth	J. N. Kenefick, Algona	M. G. Bourne, Algona	M. G. Bourne, Algona
Lee	G. H. Ashline, Keokuk	R. L. Kent, Fort Madison	G. H. Ashline, Keokuk G. C. McGinnis, Fort Madison
Linn	Jerald Greenblatt, Cedar Rapids	R. E. Weland, Cedar Rapids	R. A. Sautter, Mt. Vernon
Louisa	E. S. Groben, Columbus Junction	L. E. Weber, Jr., Wapello	E. S. Groben, Columbus Junction
Lucas		R. E. Anderson, Chariton	
Lyon	J. G. Lavender, George	S. H. Cook, Rock Rapids	A. C. Wubbena, Rock Rapids
Madison	R. W. Carson, Winterset	E. G. Rozeboom, Winterset	J. E. Evans, Winterset
Mahaska	H. C. Bos, Oskaloosa	R. E. Phelps, New Sharon	G. S. Atkinson, Oskaloosa
Marion	S. F. Kanis, Pella	K. J. Monsma, Pella	G. K. Van Zee, Pella
Marshall	W. R. Wessels, Marshalltown	R. R. Widner, Marshalltown	R. C. Carpenter, Marshalltown
Mills	M. L. Scheffel, Malvern	R. K. Fryzek, Glenwood	M. L. Scheffel, Malvern
Mitchell	R. J. Smith, Stacyville		T. E. Blong, Stacyville
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WHAT'S SO WEAK ABOUT THE WEAKER SEX?

OFTEN... HER LOWER G. I. TRACT



Psycho-abdominal Distress: Frequently Female

Women aged 15 to 45 appear to be more prone than men to bloating, cramping pain of stress-related intestinal disturbances such as irritable or spastic colon.[1,2]

Frequently Recurrent

In the experience of many physicians, women are more likely to reappear time after time with repeated complaints of lower G.I. distress.

Requiring Definitive Therapy

Often needed is therapy adequate to control both the somatic and the emotional components of psycho-abdominal complaints.

Definitive Dual Therapy

'Milpath' contains a proven synthetic anticholinergic useful for relieving hypermotility, spasm, and hypersecretion of the gastrointestinal tract.

In addition, 'Milpath' provides a time-tested tranquilizer for mild but effective anti-anxiety action.

With Flexible Dosage

- 'Milpath'-400 (meprobamate 400 mg. + tridihexethyl chloride 25 mg.) Usual adult dose: 1 tablet *t.i.d.* and 2 at bedtime.
- **When less tranquilization is required: 'Milpath'-200 (meprobamate 200 mg. + tridihexethyl chloride 25 mg.)**

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(meprobamate + tridihexethyl chloride)

relaxes smooth muscle and psyche

Please see the following page for brief summary of prescribing information.

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(meprobamate + tridihexethyl chloride)

Relaxes smooth muscle and psyche



Usual Adult Dosage

One 'Milpath'-400 tablet, three times a day at mealtimes, and two at bedtime. For greater anticholinergic effect, two 'Milpath'-200 tablets, three times a day at mealtimes and two at bedtime. Doses of meprobamate above 2400 mg. daily not recommended.

Indications

Useful in organic and functional disorders with hypersecretion and hypermotility of G.I. tract, especially when accompanied by anxiety, neurosis, or tension states. Should be used as an adjunct to all other therapeutic measures.

Contraindications

Tridihexethyl chloride: Urinary bladder-neck obstructions, e.g., prostatic obstruction due to hypertrophy; pyloric obstructions because of reduced motility and tonus: organic cardiospasm (megaesophagus); glaucoma; possibly in stenosing gastric or duodenal ulcers with significant gastric retention.

Meprobamate: Previous allergic or idiosyncratic reactions to meprobamate.

Precautions

Tridihexethyl chloride: Use cautiously in elderly males (possible prostatic hypertrophy).

Meprobamate: Carefully supervise dose and amounts prescribed. Consider possible dependence or habituation (reported occasionally after excessive use), particularly in severe psychoneurotics, alcoholics, ex-addicts. Withdraw gradually (one or two weeks) after excessive dosage for weeks or months to avoid recurrence of pre-existing symptoms (e.g., anxiety, anorexia, insomnia) or withdrawal reactions (e.g., vomiting, ataxia, tremors, muscle twitching; rarely, epileptiform seizures, more likely in those with CNS damage or latent convulsive disorders). If drowsiness or visual disturbance occurs, reduce dose and advise against activity requiring alertness (driving, machinery operation). Effects of excess alcohol may be increased. Grand mal seizures possible in persons with both petit and grand mal. Prescribe cautiously in small amounts to patients with suicidal tendencies. Prescribe with caution to patients with known sensitivity to compounds of similar chemical structure, e.g., carisoprodol.

Side Effects

The following side effects of components may occur with 'Milpath'.

Tridihexethyl chloride: Severe effects rare on recommended dosage. Anticholinergic effects: dry mouth (fairly frequent at oral doses of 100 mg.), constipation or "bloated" feeling. Possible: tachycardia, dilation of pupils, increased ocular tension, weakness, nausea, vomiting, headache, drowsiness, urinary hesitancy or retention, dizziness.

Meprobamate: Drowsiness, sometimes with ataxia, usually controlled by decreasing dosage, occasionally with aid of central stimulants (e.g., amphetamine). Rarely, allergic or idiosyncratic reactions (usually after one to four doses); in mild form: itchy, urticarial or erythematous, maculopapular rash, generalized or confined to groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever, transient leukopenia, and one fatal bullous dermatitis (after meprobamate and prednisolone) reported. More severe, very rare hypersensitivity: fever, chills, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (one fatal), anuria, anaphylaxis, stomatitis and proctitis. Treat symptomatically (e.g., epinephrine, antihistamines, possibly hydrocortisone); stop and do not restart the drug. Isolated agranulocytosis, thrombocytopenic purpura, one fatal aplastic anemia reported, but only in presence of known toxic drugs, porphyric symptoms reported but relationship not established. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation reported by one observer. Fixed drug eruption with meprobamate and cross reaction to carisoprodol reported.

Suicidal attempts may produce drowsiness, lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse, and death. Excessive dosage has led rapidly to sleep, then reduction of vital signs to basal levels. Empty stomach, and if respiration becomes very shallow and slow, cautiously give CNS stimulants (e.g., caffeine, pentylenetetrazol, amphetamine); also pressor amines if indicated.

Supplied

In two strengths:
'Milpath'-400: Yellow, scored tablets.
'Milpath'-200: Yellow, coated tablets.
Before prescribing, consult package circular.

References

1. Harrison, T. R., et al.: Principles of Internal Medicine, Fifth Edition, New York, The Blakiston Division, McGraw-Hill Book Company, 1966, p. 1019. 2. Bockus, H. L.: Gastroenterology, Second Edition, Philadelphia & London, W. B. Saunders Company, 1964, Vol. II, p. 729 et seq.

(1928A01J)

Iowa Association of Medical Assistants

New IAMA Officers

Our new president, Miss Nancy Hutson, has been employed by Drs. Dubansky and Robinow, in Des Moines, for the past 14 years as medical assistant and office manager.

President-Elect: Miss Colleen A. Proffitt, of Des Moines, is graduate of Pleasantville Community High School and worked as medical secretary at the Veterans Administration Psychiatric Hospital, in Knoxville, Iowa, before moving to Des Moines in 1965. She served as secretary-receptionist and Girl Friday in the office of Dr. John T. Bakody, and then assumed primarily the secretarial duties when Dr. Robert C. Jones joined the practice. She has been a member of the Des Moines Chapter since January, 1966, and has served on many communities in her local Chapter plus the State Membership Committee. Currently, she is president of the Des Moines Chapter. The cover of the DES MOINES BULLETIN, which is being submitted in National competition, was designed by Colleen.

Vice-President: Miss Eleanor I. Eckerson, R.T., of Des Moines, is a graduate of Pocahontas Catholic High School and attended Mercy Hospital School of X-ray Technology in Iowa City. She was registered by the American Registry of X-ray Technicians in 1959. She is employed in the office of Drs. Dubansky and Robinow as x-ray technician and medical assistant, with responsibility for insurance, claims and bookkeeping. She has served as vice-president, president-elect, and president of the Des Moines Chapter; chairman of the IMS Coffee Bar, 1969, and on a special committee preparing an IAMA brochure.

Recording Secretary: Mrs. Theresa Messersmith, of Cedar Rapids. She has been employed as receptionist, in the office of Drs. Lehr, Aschoff, and Lake for 11 years. She has served the Linn County Chapter as treasurer, program chairman, a member of the Finance Committee, and as parliamentarian for two years.

Treasurer: Mrs. Marcine Sanders, of Davenport, is a graduate of Davenport High School and A.I.C. (a business school) in Davenport. She has served as secretary in the office of Drs. Motto and Larson



Miss Nancy Hutson

Hawaii Calls—Iowa Answers

Attend the AAMA's Hawaii Convention, October 15-19, 1969, and Help Promote the 1970 AAMA Convention in Iowa!

Round-trip air fare from Des Moines	$329.00
Registration Package (including hotel accommodations—two-person occupancy—for three nights, transportation in Hawaii, etc.)	99.00
Basic tour cost	$428.00

Husbands and other family members, and friends are eligible for the special air-travel rates granted to the AAMA.

Use the registration form that has been sent you, or if you can't find it, request another. Address Mrs. Marian Little, 221 Twenty-third Street Northeast, Cedar Rapids 52402.

for 11 years. She is currently serving her second year as treasurer of the Scott County Chapter of Medical Assistants, and was corresponding secretary for IAMA in 1968-1969.

The appointed officers are as follows: Parliamentarian—Mrs. Dorla Sansom, Des Moines; Historian—Mrs Barbara Smith, Cedar Rapids; Corresponding Secretary—Miss Diane Day, Des Moines.

We are most happy to announce that the Council Bluffs Chapter was granted its charter at the State Convention in Davenport, May 17, 1969.

—JEANNE D. GREEN

President's Address

MISS NANCY HUTSON

I have accepted the leadership of this Association with faith, vision, and courage: *courage* with the support of my employers, my fellow workers, and hopefully, the cooperation of each member of IAMA; *vision* for new and brighter horizons, and *faith* in the officers and members of this Association, and the purpose it represents.

Communication is a long word, and it is also a word big in meaning and importance. In explaining an idea, in giving instructions, in writing letters, etc., good communication is essential. It is said that young people today are trying to tell us something by their fads, protests and marches. Let us take the word COMMUNICATE and break it down letter by letter to see what it tells us.

C—*Challenge.* There is certainly a challenge present in our work and our daily living. There is a challenge awaiting you as a member of this Association.

O—*Objectives.* Know the objectives of IAMA: "To inspire its members to render honest, loyal and more efficient service to the profession and to the public which they serve. To strive at all times to cooperate with the medical profession in improving public relations. To render educational service for the self-improvement of its members and stimulate a feeling of fellowship and cooperation among the societies."

M—*Membership.* Realize what membership in this Association offers you and what it can offer others. Let us work to gain new members, but let us not forget to work to maintain our present membership.

M—*Medical ethics.* Be familiar with the Oath of Hippocrates and the Code of Ethics as set forth in our Constitution and By-Laws.

U—*Unite* with other chapters and professional organizations for education and social activities.

N—*Now* is the time. Progress is not an accident, but a necessity.

I—*Ideas.* Interchange of ideas among our chapters and individual members.

C—*Certification* is a challenge for everyone. Let me share with you the following by Darwin P. Kinsley. "There are no limitations to what you can do except the limitations in your own mind as to what you cannot do. Don't think you cannot. Think you can."

A—*Achievement* comes with the active participation of all.

T—*Together* through teamwork.

E—*Education.* Today, not tomorrow is the time for our members to be aware that education in these times is an increasing necessity, not only in our work but in our daily living.

Put these letters all together again and we have the word COMMUNICATE to make known, to share. Let us all strive for better communications with our employers, co-workers, chapter members, and our fellow men. Success in any undertaking requires perseverance. To persevere brings growth. Growth means to advance, thrive, and flourish. There is great stimulation to an organization as its members work together to advance. Let us COMMUNICATE.

Prospective Medical Assistants Offered Loans

Any qualified young person wishing to pursue a career as a medical assistant may apply for a scholarship loan through the Maxine Williams Scholarship Fund, sponsored by the American Association of Medical Assistants' Endowment. This foundation was established in October 1968 to administer the scholarship fund.

Participants in the loan program may borrow up to $300 for their education. As a service to the profession, AAMA assumes all administrative costs so there is no interest rate on the loan. If the recipient spends a minimum of two years in the medical assisting field, the loan becomes an outright scholarship, and no repayment is required.

The fund, named in honor of Miss Maxine Williams, AAMA's first president, is supported entirely by private donations from state medical-assistant associations as well as local chapters. Contributions are tax-deductible as an educational expense.

To be eligible for a loan, one must be a high school graduate who wishes to take formal training in medical assisting. At the present time, AAMA is working with the American Medical Association on an approval program, eventually leading to a standard medical assisting curriculum. The suggested two-year program recommends both administrative and clinical training for an Associate Arts degree at an accredited community or junior college.

Application blanks and information about the Scholarship Loan Fund may be obtained from American Association of Medical Assistants, 200 East Ohio Street, Chicago, Illinois 60611.

Woman's Auxiliary News

From the President's Desk

Since the last edition of the AUXILIARY NEWS it has been your president's pleasure to represent you at the annual meetings of the Woman's Auxiliary to the Illinois Medical Society and the Woman's Auxiliary to the Minnesota Medical Society.

The highlight of the Illinois meeting was a talk given by Mrs. John M. Chenault, the national president-elect, on the topic "Accent on Youth—Accent on You." The Illinois Auxiliary members and officers were most cordial and hospitable, and I carried away a number of ideas that could be incorporated in our meetings.

Strange to say, the weather in Minnesota on May 26-28 was in the 90's. A proper contrast to the humid weather was a talk by Dr. Arthur C. Aufderheide on the topic "To the North Pole by Snowmobile." It was a most remarkable saga of Dr. Aufderheide's adventures during his trip to the North Pole.

This is the first year within my memory that a representative of the Woman's Auxiliary to the Iowa Medical Society has been invited to the Minnesota meeting. Dr. William M. Krigsten, president of the Iowa Medical Society, was a'so invited and attended the Minnesota Medical Society meeting.

—JEANNE COUGHLAN

"A candle loses nothing by lighting another candle."

WA-SAMA Medigram—Iowa

Greetings—County Auxiliary Presidents

You and your individual Auxiliary members *are* the Woman's Auxiliary to the Iowa Medical Society. The State Organization exists for the purpose of aiding the constituent Auxiliaries, and coordinating and stimu'ating their work. Our strength is in our unity.

In the new YEARBOOK, you will find the list of state officers and chairmen, as well as the program to be carried out this coming year. Feel free to write to any of the state chairmen or officers for further guidance or information.

Please send reports of outstanding Auxiliary meetings, projects or personal items about members, *et cetera*, to the editors of the AUXILIARY NEWS, Mrs. Dwight A. Mater, 302 S. 4th Street, Knoxville 50138, or Mrs. Robert J. Foley, 1025 16th Street, West Des Moines 50265. The deadline for publication is the fifth of the month.

—JEANNE COUGHLAN

"Coming together is a beginning; Keeping together is progress, Working together is success. . . ."

—WA-SAMA Medigram—Iowa

August, 1969, Board Meeting

The summer board meeting will be at Lake Okiboji, where Dr. and Mrs. Charles (Pat) Graham have gracious'y offered their home as the site of the meeting. Certainly those pleasant surroundings should contribute greatly to our enjoyment of this important planning meeting. All officers and committee chairmen are urged to attend.

This year we are trying to take some of the formality out of the Board meetings and make this a personal Auxiliary. Our summer board meeting offers an excellent opportunity to increase friendships and make a better working and more personal auxiliary. We want to invite all board members and all members of committees to attend the meeting, but due to by-laws and finances we can pay expenses for only e'ected officers and committee chairmen. Pat Graham has generously offered us hospitality and has planned a wonderful agenda for August 4 and 5. You will receive a notice with more details soon, but please keep this meeting in mind.

Help Wanted!

The Woman's Auxiliary to the Iowa Medical Society has again been requested to man the Health Booth at the Iowa State Fair. We are soliciting volunteers for any part of the day or if your generosity permits, an entire day. Fair dates are August 15 thru 24. Please contact Jeanne Coughlan.



From left to right, Mrs. P. H. Tenney, first vice-president; Mrs. Yme Sloterdyk, councilor, District IX; Mrs. O. A. Elliott, recording secretary; Mrs. J. F. Veverka, treasurer; Mrs. J. L. Kehoe, councilor, District VIII; Mrs. L. H. Prewitt, president-elect; Mrs. D. W. Coughlan, president; Mrs. R. L. Wicks, second vice-president; and Mrs. R. B. Smith, councilor, District II.

Rural Health

On June 17 at the ISU Memorial Union, in Ames, Mrs. Mildred Leinbach who is the special Rural Health Extension Program Planning chairman and Mrs. Jeanne Coughlan attended a meeting prepared by the Cooperative Extension Service in Agriculture and Home Economics (i.e., "Extension Service") of Iowa State University to acquaint our organization with its materials and methods of communication in both rural and urban communities. Cooperation between the two organizations promises rich rewards, for the Extension Service and the Auxiliary have many common programs, and shared enthusiasm. Shared ideas and shared work can bring about long-strived-for better health for rural and urban Iowans. Louise Rosenfeld of ISU was instrumental in organizing that meeting, and she was ably assisted by this group of Extension Service Directors: Mrs. Margaret Yoder, assistant state leader in home economics, Mrs. A. Pauline Mairs, an extension nutritionist, Mrs. Marie Bishop, assistant state leader of 4-H and youth programs, Mrs. Naomi D. Shank, an Extension specialist in safety, and these four district leaders: Mrs. Bernice M. Bateson, Mrs. Mildred B. Ryan, Mrs. Gertrude C. Smith and Mrs. Mildred K. Wellman. Plans for future meetings of the chairmen of Rural Health, Mental Health, Safety, Children and Youth, and Health Careers committees from both organizations are being formulated, so that we can exchange ideas and start working together in these areas.

Around the Hawkeye State

DALLAS-GUTHRIE

The Dallas-Guthrie Medical Society and its Auxiliary held their May 15 meeting in Guthrie Center. Following a 7:00 p.m. dinner at the Midway Cafe hosted by Dr. and Mrs. Herbert Neff and Mrs. Adelle Thornburg, the Auxiliary met at the Neff home for a business meeting and social hour.

Plan Now to Attend WA-AMA Convention

The Woman's Auxiliary to the American Medical Association will hold its 46th annual Convention at the Waldorf-Astoria Hotel, New York City, July 13-17, 1969. Plan now to attend—reservations may be requested on the form on page 17 of the May issue of MD'S WIFE.

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

President—Mrs. D. W. Coughlan, 1435 Park Avenue, Des Moines 50315
President-Elect—Mrs. L. H. Prewitt, 33 Birchwood Hills, Ottumwa 52501
Recording Secretary—Mrs. O. A. Elliott, 4010 Welker Avenue, Des Moines 50312
Treasurer—Mrs. J. F. Veverka, Box 324, Prairie City 50228
Editor of THE NEWS—Mrs. D. A. Mater, 302 S. 4th Street, Knoxville 50138
Assistant Editor—Mrs. R. J. Foley, 1025-16th Street, West Des Moines 50265



Personals



Dr. James A. Clifton, professor and vice-chairman of the Department of Internal Medicine at the U. of I. College of Medicine, has been chosen as president-elect of the American Gastroenterological Association.

On June 15, **Dr. W. M. Petty** joined **Drs. R. R. Hansen** and **K. H. Prescott** in practice at Storm Lake. Dr. Petty is a graduate of the U. of I. College of Medicine, served an internship at Iowa Lutheran Hospital, Des Moines, and practiced for a time in Alden. Since then he has worked successively in Grand Lake and in Vail, Colorado, where his practice is said to have consisted largely of trauma cases that resulted from skiing, mountain-climbing and motor-vehicle accidents.

On May 28, in an address to a lay audience at the high school in Keokuk, **Dr. W. D. Paul,** emeritus professor of physical medicine and rehabilitation and varsity team physician at the University of Iowa, commented on the loss of calcium that has occurred repeatedly in U. S. astronauts. He attributed it to the relative disuse of the men's muscles. He said he had observed the same thing in experiments during which he kept athletes inactive for comparable periods.

At the May 26 meeting of the Clinton County Medical Society, held at the Odeon Club in Clinton, the guest speaker was **Mr. John O. Larson**, a member of the joint field staff of the IMS and Blue Shield.

Dr. James W. Rathe, of Waverly, was installed as president of the Iowa Heart Association during the organization's annual meeting in Des Moines, May 24 and 25. He succeeded **Dr. E. A. Motto,** of Davenport. Both men are internists.

At a meeting of the town's Rotary Club, in mil-May, **Dr. Aaron Randolph,** of Anamosa, suggested that signs indicating that there is a general hospital available there should be placed at the entrances from nearby highways. An editorial in the ANAMOSA JOURNAL for May 20 expanded on the idea by proposing additional signs that would assist motorists with ill or injured passengers in reaching the hospital without stopping to ask for directions.

Dr. Oscar Alden, of Red Oak, chairman of the Montgomery County Board of Health asked governmental agencies, in mid-May, to help identify some tiny orange tablets that elementary-school children had found wrapped in tissue in a Bufferin bottle, in the yard of an abandoned Red Oak church. About 21 of the children ate or tasted them and became ill—10 of them violently. He speculated that they might be amphetamine pills, and said the youngsters experienced vomiting and hallucinations and other mental phenomena. On May 18, when the local newspaper's account of the incident was published, the remaining pills had been forwarded to the USPHS laboratory in Kansas City. The principal of the school wanted it understood that the children had supposed the material to be candy.

Dr. S. H. Cook, of Rock Rapids, underwent surgery in Sioux City on May 14.

Dr. Charles A. Johnson was elected president of the medical staff of St. Luke's Medical Center, Sioux City, on May 19. **Dr. Donald B. Blume** was chosen as vice-president; **Dr. Leonard H. Boggs,** secretary; and **Dr. C. L. Beye,** treasurer. All of them will serve two-year terms. At that meeting, **Dr. A. W. Horsley** reviewed the hospital laboratory's experience with its sequential multiple analyzer that performs a dozen different tests.

Dr. Elmer A. Larsen, of Centerville, is the new president of the 14-county Southeastern Division of the Iowa Heart Association. Other physicians

among the newly-elected officers are **Dr. Paul W. Scott,** of Ottumwa, a vice-president, and **Dr. F. O. W. Voigt,** of Oskaloosa, medical chairman.

On May 11, the Sunday of the open house at his and **Dr. Keith Chapler's** remodelled Dexter Hospital and Clinic, **Dr. C. Robert Osborn** was hospitalized, initially in Dexter but later in Des Moines, with gastric hemorrhage. The two doctors founded their facility in 1936. At present it has 18 beds and three bassinets. The employees number 61.

Dr. Harold VanHofwegen spoke on the topic "Medicine in 1959" at the May 19 meeting of the Newton Woman's Club.

Dr. Julius S. Conner, director of the Des Moines-Polk County Health Department, has offered some startling statistics regarding power-lawnmower accidents, and some wise precautions for their operators to observe. There were 70,000 accidents involving power mowers last year, he says; 50,000 toes were severed, and 18,000 fingers. Approximately 30 per cent of the injuries were suffered by bystanders. Though only 9 per cent were caused by poor maintenance of the machines, Dr. Conner suggests that the soundness of the blade and the blade housing should be determined at least once a year. He listed five valuable hints:

1. Review your operator's manual, and know how to stop your mower quickly.
2. Pick up debris from the lawn prior to mowing.
3. Keep the area clear of children and pets.
4. Mow crossways on slopes, rather than up and down.
5. Always disconnect the spark plug before making repairs and adjustments on the unit.

Dr. Jean M. Rickey, a general practitioner who has been on the staff of the Steele Memorial Clinic, in Belmond, for the past year, will move to the McCrary-Rost Clinic, in Lake City, early this month.

Within the next few weeks, **Dr. Robert Cozine,** a general practitioner from Texhoma, Oklahoma, will join **Dr. James Coffey** and **Dr. Francis S. Conway** in Emmetsburg. Dr. Cozine is a medical graduate of the University of Chicago, and he served his internship and a part of a surgical residency at Johns Hopkins Medical School. He and his wife have two sons, 14 and 12 years of age, and their principal reason for leaving Texhoma after 10 years was that the public schools were closed, there, as the result of a consolidation.

Dr. Paul L. Gjerstad has agreed to join **Drs. John A. Broman, Paul F. Brown, Earl V. Andrew** and **Clifford L. Rask,** on October 1, at the Maquoketa Medical Center. Dr. Gjerstad, initially from Buffalo Center, is a 1966 graduate of the U. of I. College of Medicine, and he interned at the Sacramento County Hospital, in California. He is now completing a tour of military service. Mrs. Gjerstad is a registered nurse, and she and Dr. Gjerstad have a three-year-old daughter.

After 13 years' membership, **Dr. Walter J. Kopsa** has resigned from the Tipton Community Board of Education, explaining that his work with the County Board of Health and the Area Health Planning Council was taking up all of the time he could spare from his practice.

At a cancer conference for nurses held in Mason City on May 6, the principal speakers were **Dr. Howard B. Latourette,** a U. of I. professor of radiology, and **Dr. Fred J. Ansfield,** head of clinical oncology at the University of Wisconsin.

Wartburg College, in Waverly, conferred a doctor of humanities degree upon **Dr. Robert C. Hardin,** U. of I. vice-president for medical affairs, at its commencement exercises on May 31. **Howard R. Bowen, Ph.D.,** the U. of I. president, gave the commencement address.

A paper by **Dr. Adrian E. Flatt** on synovectomy for the rehabilitation of rheumatic hands was published in the May issue of HOSPITAL PRACTICE. Dr. Flatt is a professor of orthopedic surgery at the U. of I.

Dr. Loran E. Allaman, of Oskaloosa, resigned the medical directorship of the South Central Mental Health Center on May 8. On August 1 he will join the staff of the Prairie View Mental Health Center, in Newton, Kansas.

The guest speaker at the annual meeting of the Appanoose County Chapter of the American Cancer Society, in Centerville on May 19, was **Dr. Richard A. Hastings,** of Ottumwa.

Dr. William B. Bean, head of internal medicine at the U. of I. College of Medicine, is the author of a chapter on food and its relationship to performance in a forthcoming book THE ENCYCLOPEDIA OF SPORTS MEDICINE, published under the sponsorship of the American College of Sports Medicine. Dr. Bean describes the effects on performance which occur in starvation and vitamin

deficiency, as well as many aspects of rehabilitation. "Acute calorie deprivation can render an effective person or a whole group totally incompetent in a few days. Performance at every level of activity deteriorates," he has written. "Soldiers or prisoners of war who have been seriously, but not fatally, undernourished, lose fine coordination, speed, strength, and indeed the will to work."

The State Board of Regents, at a recent meeting, approved a change in the appointment of **Dr. Robert C. Hardin,** who has been vice-president for medical affairs and dean of the College of Medicine at the University of Iowa. Effective September 1, Dr. Hardin will become vice-president and dean for health affairs. The process of selecting a new dean for the College of Medicine is under way.

Dr. Jack Fickel, of Red Oak, a member of the State Board of Public Instruction, gave the commencement address at Clarke Community High School, in Osceola, on May 27.

The Johnson County Medical Society held its annual picnic on June 4 at the home of **Dr. H. R. Jenkinson** on Lake Macbride, near Solon.

Various segments of the Comprehensive Program on Cerebrovascular Disease Management are getting under way, with funds provided by the Iowa Heart Association and the Regional ("De Bakey") Medical Program. It began three years ago with the North Iowa Stroke Rehabilitation Program, based in Mason City and serving 14 north-Iowa counties, under the direction of two volunteers, **Dr. Robert McCoy** and **Dr. A. J. Herlitzka.** Rehabilitation was its main object, and nurses and therapists still work directly with many patients in their homes there. But education is now equally important, under the chairmanship of Dr. McCoy.

A new undertaking, in some ways different from anything else in the country, is taking place in Des Moines under the leadership of **Dr. Paul From** and **Dr. William de Gravelles.** It is called the Capital City Stroke Division, and its work is conducted at a four-bed intensive-care unit for stroke patients at Mercy Hospital, Des Moines. It will serve patients from four counties, Polk, Warren, Dallas and Marion. Obviously, the facilities are too limited to be available to all of them, but it is expected that the benefits of the program will reach most of the current patients indirectly, and is sure to help future patients. Late in May the Capital Division conducted a seven-session teaching program for all types of personnel concerned in the care of stroke patients. The faculty consisted of **Dr. John Bakody, Dr.**

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Clifford W. Losh, Jr., Dr. Alexander Matthews, Drs. From and de Gravelles, and a nurse, a social worker and a physical therapist.

Another stroke program has been started in Sioux City, under the volunteer co-chairmanship of **Dr. T. E. Shea,** of Storm Lake, and **Dr. F. B O'Leary,** of Sibley. **Dr. E. G. Nafziger,** of Sioux City, will act as the physician director. A nurse-coordinator and physical therapist team already is on the job, as well as a staff for workshops on rehabilitation and stroke education. The project will serve Buena Vista, Cherokee, Clay, Crawford, Dickinson, Ida, Lyon, Monona, O'Brien, Osceola, Plymouth, Sac, Sioux and rural Woodbury Counties, and is designed to elevate the level of care given stroke patients in hospitals and nursing homes through professional education.

Dr. Eugene F. Van Epps, a former head of radiology at the U. of I. and a past-president of the IMS, began a two-year term as president of the American Board of Radiology on June 6. Since leaving Iowa City Dr. Van Epps has been at Duke University, in Durham, North Carolina, and he will move shortly to the University of New Mexico, in Albuquerque.

In an anecdote contained in an after-dinner speech at the recent annual meeting of the Wisconsin State Medical Society, it was revealed that **Dr. Ben T. Whitaker,** a retired Boone radiologist and a past-president of the IMS, once had a share in treating an ex-president of the United States —**Theodore Roosevelt.** After having been succeeded by **President William Howard Taft,** from 1908 to 1912, Mr. Roosevelt was campaigning for the presidency on the Progressive Party ("Bull Moose") ticket. While speaking in Milwaukee, on October 14, 1912, he was wounded by a would-be assassin. He refused hospitalization until 1½ hours later, when his special train was on the outskirts of Chicago, and then he was taken to Mercy Hospital, there, for surgery by **Dr. John B. Murphy.** Dr. Murphy, the speaker remembered, assigned the task of making the repeated blood counts to "a young resident," Dr. Whitaker.

Dr. Ki Taek Song is to begin the practice of surgery at the Park Clinic, Mason City, on July 1. He received his M.D. degree from the National Medical School at Seoul, Korea, in 1950, and took his internship at the University Hospital there. He served a second internship at the U. S. Naval Hospital in San Diego, and received his residency training at hospitals in Minneapolis. Since then he has worked at various places in Canada, once again in Minnesota, and most recently in Dayton, Ohio. He is a diplomate of the American Board of Surgery and of the American Board of Thoracic Surgery. Dr. and Mrs. Song have two sons, aged 11 and 5.

On June 4, **Dr. George Baker,** an assistant professor of pediatrics at the U. of I. College of

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Medicine, spoke on "Comprehensive Care of the Neonate" at a meeting of the Winneshiek County Medical Society, in Decorah. An article of his, "Nutritional Survey of Northern Eskimo Infants and Children," was published in the May issue of the AMERICAN JOURNAL OF CLINICAL NUTRITION.

The Department of Pediatrics at the U. of I. College of Medicine and the Iowa Chapter of the American Academy of Pediatrics will present a postgraduate course on September 10 and 11 at the Memorial Union in Iowa City. **Floyd W. Denny, M.D.,** chairman of the Department of Pediatrics at the University of North Carolina Medical School, and **William A. Silverman, M.D.,** a member of the staff at the Perinatal Health Center of Children's Hospital, San Francisco, will be the principal speakers. All interested physicians are encouraged to attend. Inquiries should be addressed to **David Silber, M.D.,** at the U. of I. Department of Pediatrics.

Dr. Charles Johnson, an assistant professor of pediatrics at the U. of I. spoke on "The Changing Population in the Child Development Clinic" to the University Council of Children and Youth at the Memorial Union in Iowa City on June 4.

Dr. Jack Moyers, head of anesthesia at the U. of I. College of Medicine, served as a visiting professor at the University of Copenhagen from June 14 through June 21. He lectured at a special refresher conference for anesthesiologists who studied seven years ago at the Anesthesiology Training Center sponsored there by the World Health Organization. Following the Copenhagen conference, Dr. Moyers participated in a five-day meeting of the Scandinavian Society of Anesthesiologists, in Bergen, Norway. He is one of the founders and an "extraordinary life member" of that organization.

Dr. Lauren A. Woods, head of pharmacology at the U. of I., has been made president-elect of the 1,450-member American Society of Pharmacology and Experimental Therapeutics. He also is a member of the AMA Council on Drugs, a member of the advisory committee of the APhA Drug Standards Committee, and a member of the Pharmacology-Toxicology Review Committee of the National Institutes of Health. He holds a Ph.D. from Iowa State University, Ames, and an M.D. degree, *cum laude,* from the University of Michigan.

Dr. Floyd M. Burgeson has dissolved his partnership with **Drs. V. L. Schlaser, Earl L. Redfield** and **Donald J. Tesdall,** in general practice at 711 East Locust Street, Des Moines, and has accepted a position with the Veterans Administration.

On May 16 **Dr. Gerald Solomons,** an associate professor of pediatrics at the U. of I., presented the fourth annual Robert West Memorial Lecture on "Speech and Hearing Problems in a Child Development Clinic Population" at Brooklyn College, New York City.

Drs. John A. Caffrey and **Jackson VerSteeg,** of Des Moines, were recently made diplomates of the American Board of Anesthesiology.

E. Martin Gal, Ph.D., professor and head of the Division of Neurochemical Research in the U. of I. Department of Psychiatry, participated in organizing the American Society for Neurochemistry in Ann Arbor, Michigan, June 1, and lectured on "Current Trends in Neurochemistry" at the University of Michigan's Mental Health Research Institute.

Two members of the U. of I. faculty in surgery are abroad on speaking engagements. **Dr. Richard L. Lawton,** a professor, discussed "New Techniques for Treating Buried Arteriovenous Fistulas" at the sixth annual meeting of the European Dialysis-Transplant Association, in Stockholm on June 28. **Dr. Nicholas P. Rossi,** an associate professor in the Division of Thoracic and Cardiac Surgery, will speak on "Surgically Treatable Complications of Myocardial Infarctions" at the first Asia-Pacific Congress on Diseases of the Chest, on July 2, at the University of Kyoto, in Japan.

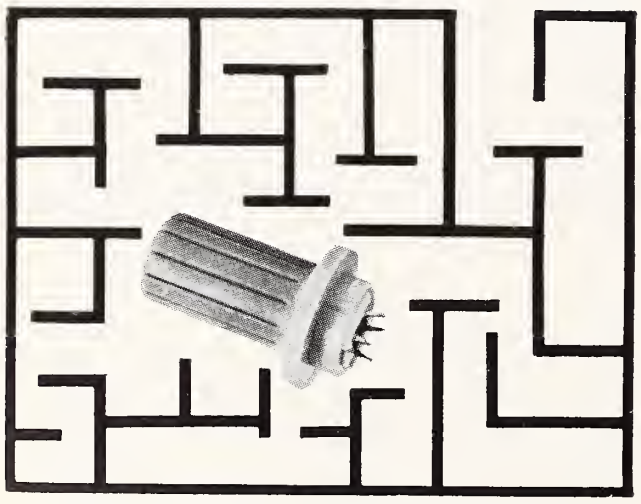
Dr. John R. Knott, a professor of psychiatry and neurology and head of the Division of Electroencephalography and Neurophysiology at the U. of I., will be a visiting professor of psychiatry and biobehavioral science at the Louisiana State University Medical Center, in New Orleans, from October, 1969, through June, 1970.

Dr. Franklin H. Top, head of preventive medicine and environmental health at the U. of I., presented the Marcuse Lecture at the University of Michigan School of Public Health on June 13. His topic was "The Hospital—A Crossroads for Infection."

Dr. Mary E. Kohl has been appointed psychiatrist for the Des Moines Child Guidance Center. After taking her M.D. at the University of Wisconsin, she interned at Norwegian Medical Hospital, Chicago, and took a pediatric residency at New York Infirmary and Bellvue Hospital, New

York City. She has worked at tuberculosis hospitals in New York State, has received training in child and adult psychiatry at the University of Iowa, and has worked at the Children's Service Center of Wyoming Valley, in Wilkes-Barre, Pennsylvania, where her supervisor was **Dr. Milford E. Barnes, Jr.**, former medical director of the Des Moines Child Guidance Center.

Dr. David Hansen wrote a letter, early in June, to **Mr. Dale Holmes,** the Cedar Falls fire chief, expressing gratitude for the rescue squad's work. A patient of his, he said, "walked out of here alive . . . due in large measure to the fact that his circulation and respiration were maintained by the firemen until definitive treatment could be instituted" following an apparent heart attack. "The real purpose of my writing to you," the doctor said, "is the hope that you'll convey to the department personnel involved my appreciation for a job well done." Mr. Holmes, in turn, expressed his thanks to the Cedar Falls physicians. The firemen recently completed a series of weekly training sessions, he pointed out, in which the doctors undertook to acquaint them with the medical emergencies that they might encounter.



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Dr. E. S. Brintnall, a clinical professor of surgery at the U. of I. and a staff member at the Iowa City VA Hospital, suffered a heart attack in Eldora on June 5. For a considerable length of time Dr. Brintnall has performed operations at the Eldora Hospital a couple of days each week.

Dr. and Mrs. Frederick Marsh, of Council Bluffs, were in an automobile accident near Upper Sandusky, Ohio, June 5. Dr. Marsh escaped with no more than a scratched hand, but Mrs. Marsh suffered a neck injury and head lacerations, and she was hospitalized at Jennie Edmundson after he brought her back by plane. Dr. Marsh had retired as recently as June 1.

The Quad City Hospitals School of Medical Technology graduated seven students on June 11 at Mercy Hospital, Davenport. **Dr. W. S. Phetepplace** is director of the School.

In a very curious coincidence, a puppy with a cleft palate was whelped last October in the household of a Cedar Falls couple who, that same day, had taken their four-month-old daughter to **Dr. Leslie Bernstein,** at the U. of I. Department of Otolaryngology and Maxillofacial Surgery, for repair of that same type of defect. At the suggestion of their veterinarian, they gave Dr. Bernstein the dog for use in studying the etiology or inheritance pattern of the abnormality.

William K. Metcalf, M.D., a professor of anatomy at the U. of I. College of Medicine, has been given a $57,000 lymphocyte study grant by the USPHS. It will finance three years of work on the effects of vaccine, radiation and oxygen deficiency on white blood cells. Greater knowledge in this area will be useful in connection with non-surgical cancer therapy and with the suppression of auto-immune responses in tissue-transplant patients.

On July 1, **Dr. Marshall Flapan** joined **Drs. Marvin H. Dubansky** and **Sidney Robinow** in the practice of orthopedic surgery at 1055 Fifth Avenue, Des Moines. Dr. Flapan took his B.A. at Drake and his M.D. at the University of Iowa College of Medicine (1963). He interned at Highland Alameda County Hospital, in Oakland, and took his residency training at the State University of New York Upstate Medical Center.

Dr. William C. Ross, a 1968 graduate of the medical school at the University of Arkansas who recently finished his internship at Mercy Hospital, Des Moines, joined **Dr. Joseph R. Byers** in general practice at 4022 Fleur Drive, Des Moines, on July 1. He served in the U. S. Marine Corps from 1953 to 1959, and in the Marine Corps Reserve for the following two years. He and Mrs. Ross have two children.

On July 1 **Dr. Steven C. Bauserman**, who has practiced general medicine in Ottumwa and Agency since 1964 and during the past year has been president of the medical staff at the Ottumwa Hospital, began a residency in pathology at University Hospitals, Iowa City. He is a 1963 graduate of the U. of I. College of Medicine.

Dr. David E. Stearns, a 1966 graduate of the U. of I. College of Medicine who interned at the Wilmington Medical Center, in Wilmington, Delaware, and since then has been in the U. S. Navy, stationed in Portsmouth, Virginia, joined **Drs. Merton A. Johnson** and **Robert L. Eggers** in general practice at Nevada, on July 1.

Dr. Ignatius Greene, who has practiced in Ossian since February, 1966, plans to move to Decorah in mid-July, where he will be the physician on the staff of Luther College. He will commute daily from Decorah to continue his practice in Ossian.

Medical Associates, in Clinton, secured three additional physicians recently. **Dr. H. James Nickerson**, a graduate of the U. of I. College of Medicine who interned at the Naval Hospital in Philadelphia and took a pediatric residency at Philadelphia Children's Hospital, has been on the pediatrics staff of the Naval Hospital at Camp Lejeune, North Carolina. He is board certified. The Nickersons have a son and three daughters. **Dr. Dale T. Mericle**, a general practitioner, will join the group on July 14. He also is a graduate of the U. of I. College of Medicine, he interned at the Kern County General Hospital, Bakersfield, California, and is now completing a two-year tour of military service at Navy hospitals in California. He and Mrs. Mericle have an infant daughter. **Dr. Thomas K. Knoke**, an obstetrician and gynecologist, will join the staff on August 1. He is a graduate of Wooster College, Wooster, Ohio, he took his M.D. at the University of Wisconsin, and served his internship at the hospital in Rockford, Illinois. He is currently finishing a residency in his specialty at the Marquette University Medical School and Milwaukee County Hospital. He served his tour of military duty with the Army at Atlanta. Dr. and Mrs. Knoke have three daughters.

Dr. Frank G. Ober, a Burlington orthopedic surgeon and a recent past-president of the Iowa Medical Society, is convalescing at home following hospitalization at University Hospitals, Iowa City. Dr. Ober's home address is 922 North Seventh Street, Burlington 52601.

At Belmond on Tuesday, June 7, **Dr. Donald J. Lulu**, chief of general surgery at the Veterans Hospital in Des Moines, addressed the Wright County Medical Society on the surgical treatment of diseases of the pancreas. As usual, the speaker was flown from Des Moines to Clarion by charter plane in an effort to conserve his time.

Dr. Tom W. Purcell, a 1968 graduate of the U. of I. College of Medicine who recently finished an internship at Denver General Hospital, joined the staff of the Kersten Clinic, in Fort Dodge, on a temporary basis, June 23. He expects to start his two years of military service in the early fall.

Neural Science Seminar

A Seminar in Neurology, Neurology and Neurosurgery will be held at the Minneapolis Veterans Administration Hospital, 54th Street and 48th Avenue South, on August 6, 7 and 8. Recent advances in these fields will be reviewed. Physicians and other medical personnel are invited to attend. The cost of the Seminar will be borne by the Minneapolis Veterans Administration Hospital. Rooms have been reserved for visiting participants at a minimal cost at the Sheraton Motor Inn. A social program by an outstanding faculty is being planned. You may register by writing to Dr. Milton Alter, chief of Neurology Service, Veterans Administration Hospital, Minneapolis, Minnesota.

Wednesday, August 6

9:00 a.m. The Conservative Management of Subarachnoid Hemorrhage—Z. Miller.

10:00 a.m. L-Dopa in the Treatment of Parkinson's Disease—D. Webster

11:00 a.m. Valium in the Management of Status Epilepticus—G. Sawyer

12:15-1:20 p.m. Lunch

1:30 p.m. The Role of Immunity in Multiple Sclerosis—K. Ansari

2:30 p.m. Cerebral Atherosclerosis: New Concepts of Pathogenesis—E. Stadlan

3:30 p.m. Case Demonstrations: Unusual & Instructive Neurological Disorders—M. Alter

Thursday, August 7

9:00 a.m. Evaluation of the skull series—Normal and Abnormal—W. Prentice

10:00 a.m. The Radiologic Diagnosis of Cerebral Atrophy—H. O. Peterson

11:00 a.m. The Radiology of Stroke—S. A. Kieffer

12:00-1:30 p.m. Lunch

1:30 p.m. Clivography & Myelography for Diagnosis of Tumors of the Spinal Canal and Posterior Fossa—L. H. Gold

2:30 p.m. New Frontiers in Brain Scanning and Echoencephalography—M. Loken and J. Wolff

4:00 p.m. Case Demonstrations: Unusual and Instructive Neuroradiologic Disorders—S. Kieffer

Friday, August 8

9:00 a.m. Endarterectomy in Treatment of Cerebral Vascular Disease—D. Erickson

10:00 a.m. Normotensive Hydrocephalus—E. Seljeskog

10:30 a.m. Surgery for Peripheral Nerve Injuries—E. Seljeskog

11:00 a.m. Thalamotomy in Parkinson's Disease—New Uses for the Operating Microscope and Microsurgery—D. Long

12:00-1:00 p.m. Lunch.

1:00 p.m. The Surgical Management of Subarachnoid Hemorrhage—S. Chou

2:00 p.m. Care of the Chronic Low Back Syndrome and the Management of Lumbar and Cervical Disc Disease—L. French

3:00 p.m. Percutaneous Cordotomy and the Newer Methods of Treating Chronic Pain Problems—D. Long
Case Demonstrations: Unusual & Instructive Neurosurgical Cases—D. Long

Deaths

Dr. Max F. Wetrich, 61, who had practiced in Grand Junction since 1945, when he returned to Iowa after 39 months' service in the Aleutians during World War II, died at his home on May 12. He was a 1939 graduate of the U. of I. College of Medicine, he interned at Broadlawns-Polk County Hospital, Des Moines, and he practiced for two years in Manilla, Iowa, before entering the military.

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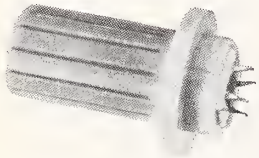
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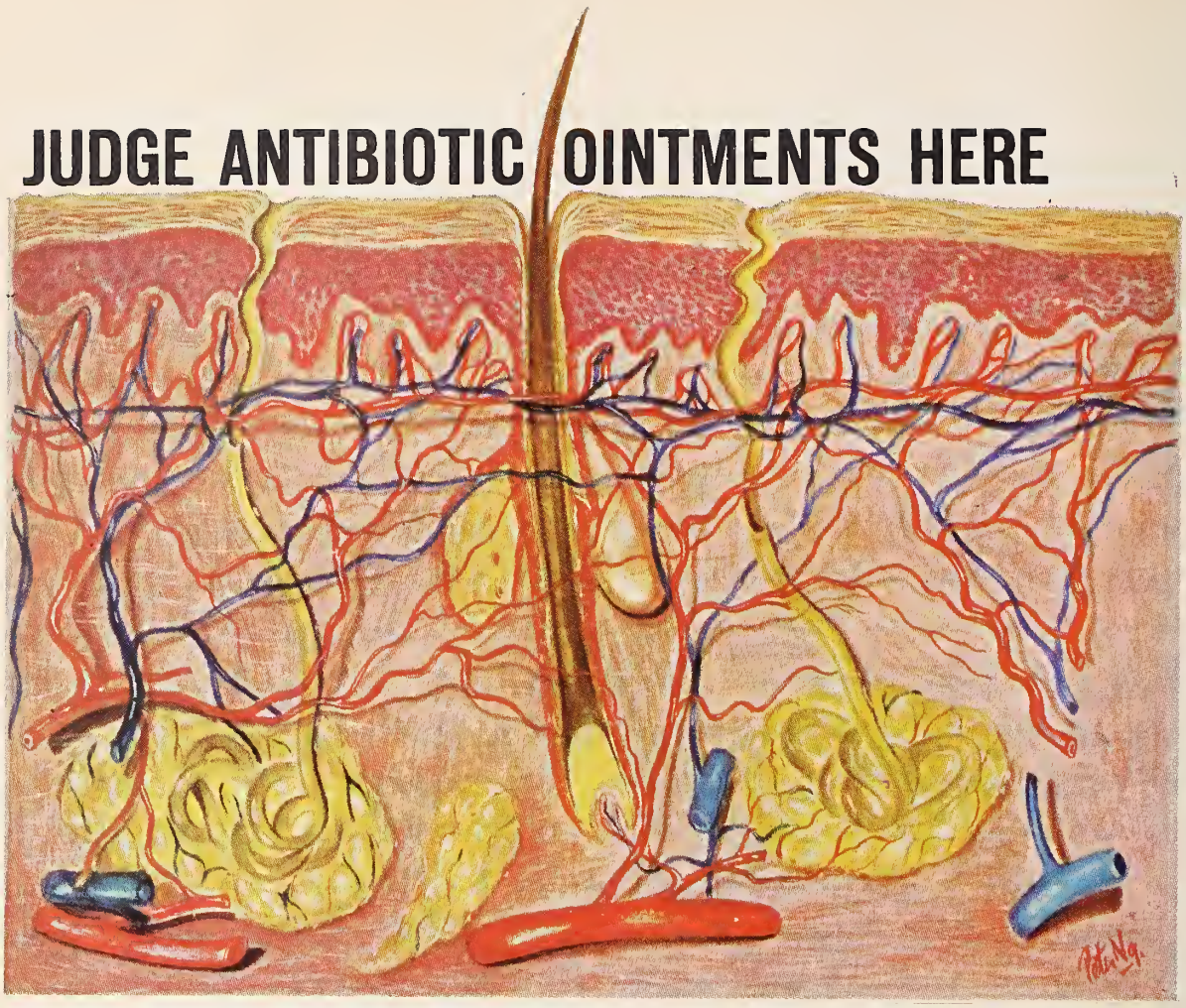
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- Care of the Low Birth Weight Infant—George L. Baker, M.D.
- Changing Concepts in the Evaluation and Radiation Therapy of Hodgkin's Disease—Joseph D. Hall, M.D., and Howard B. Latourette, M.D.
- Genetic Counseling in Medical Practice: Part I—Hans Zellweger, M.D.
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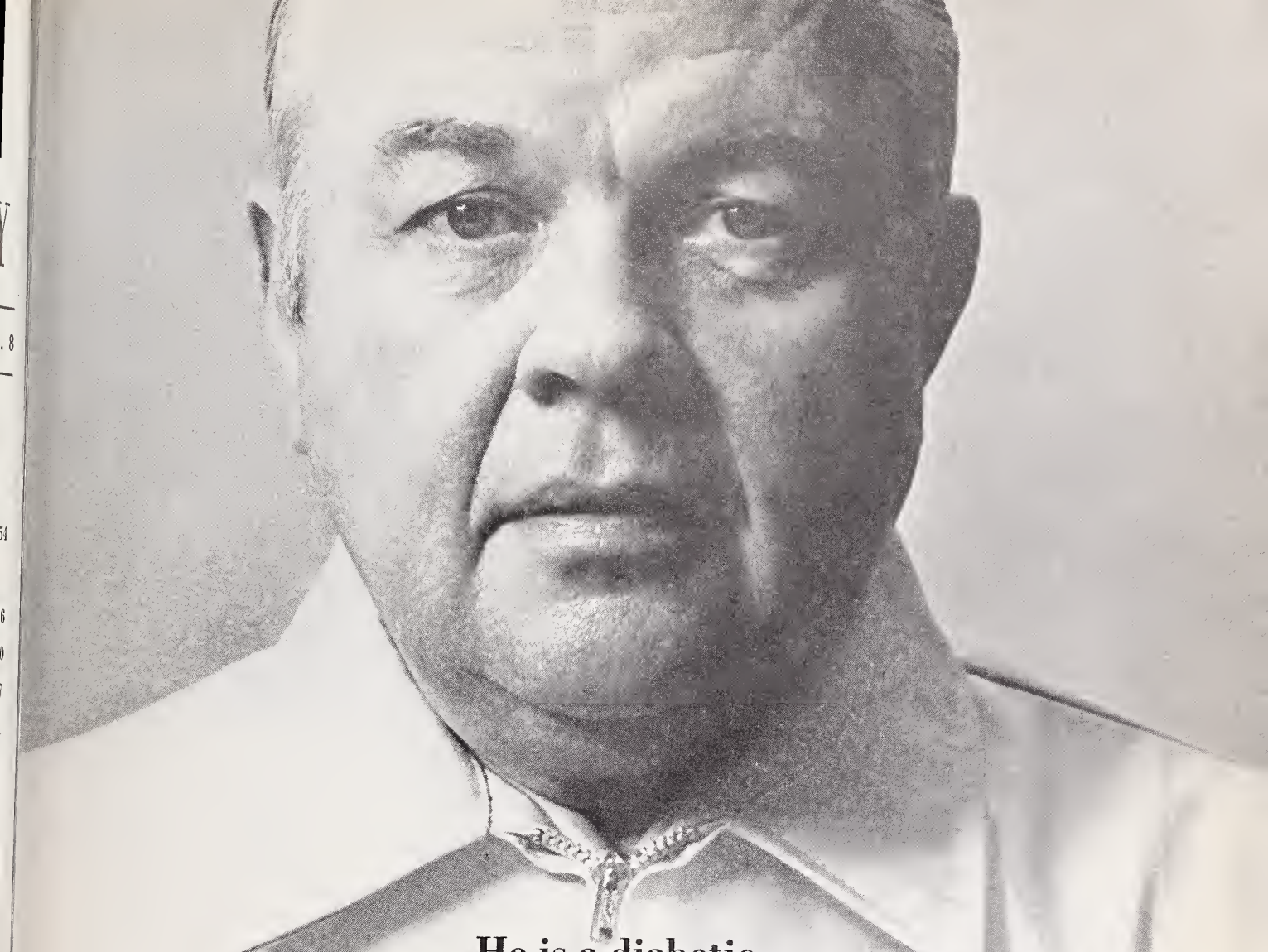
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The Month in Washington

Washington, D. C.—The Internal Revenue Service plans to audit the federal income tax returns of physicians and other health practitioners who have received more than $25,000 a year in Medicare and Medicaid payments.

Plans for the special audit were disclosed by IRS Commissioner Randolph W. Thrower at the first of a series of public hearings which the Senate Finance Committee is holding in its investigation of the rising costs of those two government health care programs. He said the Department of Health, Education and Welfare had agreed in the future to require intermediary insurance carriers to use physicians' social security numbers on reports of payments under the program.

Finance Committee Chairman Russell B. Long (D., La.) estimated "possibly as many as 10,000" had been getting upwards of $25,000 a year under the programs. Mr. Thrower said the initial audits would be for 1967 and would be limited to those receiving more than $50,000.

Senator Long said that his Committee's staff so far had found "widespread abuse, and fraud, as well as lax administration."

Mr. Robert M. Ball, social security administrator, reported that his investigators had looked into more than 700 possible fraud cases under Medicare. He said more than 300 of them were still in some stage of inquiry, and that 14 had been turned over to the Justice Department for prosecution. "But these should not be taken as a reflection on the 200,000 doctors participating in Medicare," Ball said. But he added that a bigger problem than outright fraud consisted of "cases that don't quite become fraud."

HEW Undersecretary John G. Veneman told the Committee that the Nixon Administration wants congressional authority to stop Medicare payments to doctors who overcharge, use inferior supplies or engage in fraud. "Under present Medicare law, there is no authority for the program to deny reimbursement to a licensed practitioner who has demonstrated a clear pattern of fraud, repeated overcharging of the program or the use of supplies which are inferior or harmful," Mr. Veneman said. "We are recommending authority . . . to discontinue future reimbursement and to put all parties on notice to this effect where on the basis of clear evidence, a finding is made that this is justified by reason of such abuses."

Commenting on the hearings, Dwight L. Wilbur, M.D., president of the American Medical Association, said that the vast majority of physicians serving Medicaid patients are not overcharging for their services. "Most physicians," Dr. Wilbur said, "are acting honorably and with utmost restraint. Fortunately, very few M.D.'s participating in Medicaid are guilty of overcharging and otherwise exploiting the program. Such exploitation by a minuscule minority was unavoidable. . . .

". . . The medical profession is making a great effort to identify and weed out dishonest doctors who betray their oath as professional men serving the public. We have been successful in this search, but a few physicians remain who still are not identified. We shall search them out and expose them, for the good of the entire profession."

Meantime, HEW issued a regulation limiting the fees paid by states to physicians, dentists and other health practitioners under Medicaid. Under the regulation, a state's Medicaid payment to a physician for a service will be limited, with one exception, to the 75th percentile of the customary charge—the maximum customary fee charged for the procedure in question by 75 per cent of the physicians in the area. If a state has been paying more than the 75th percentile of the customary charge, it must not exceed the Medicare level, which is about the 83rd percentile. A Medicaid official said that only two states may have to roll back their fees, but he declined to name them.

After July 1, 1970, states may request permission to increase physicians' fees above the 75th percentile if two conditions are met:

1. The average percentage increase requested above the 75th percentile on January 1, 1969, may not exceed the percentage increase in the all-services component of the Consumer Price Index (adjusted to exclude the medical component) or in an alternate index designated by the Secretary of Health, Education and Welfare.

2. Evidence must be clear that the providers and the states have cooperatively established effective utilization-review and quality-control systems.

The new fee regulation also requires states to revise their Medicaid plans to include descriptions and details of their payment structures. A state that wishes to revise its payment structure for practitioners' services or to change the payments authorized under it may not do so until the proposed changes have been approved by the Secretary of Health, Education and Welfare or his representative.

States that begin their Medicaid programs after July 1, 1969, must arrange their payment structures so that fees do not exceed the 75th percentile of customary charges.

HEW estimated the regulation would result in a saving of $65 million in the first year.

Despite a strong protest by the American Hospital Association, HEW discontinued the overhead Medicare-Medicaid percentage allowance paid to hospitals, extended care facilities and other institutional providers. It was two per cent for nonprofit and one-and-one-half per cent for proprietary institutions. The action was effective July 1, 1969.

Another new Medicaid regulation requires states to provide periodic health screening, diagnosis, and treatment for all eligible youths under 21 years of age, effective July 1, 1969.

HEW also established a new classification of institution—called intermediate care facility—eligible to receive federal contributions for the care of the aged, blind, or disabled. This action should reduce costs of Medicaid by allowing states to move substantial numbers of welfare recipients from skilled nursing homes to lower-cost institutions, HEW said.

* * *

After a five-month delay, Dr. Roger O. Egeberg, who has been dean of the School of Medicine, University of Southern California since 1964, was selected to be the new Assistant Secretary of Health, Education and Welfare for Health and Scientific Affairs.

President Nixon nominated Dr. Egeberg after HEW Secretary Robert H. Finch "reluctantly and regretfully" withdrew his unannounced but widely-publicized selection of Dr. John H. Knowles, director of Massachusetts General Hospital, Boston. Mr. Finch said that "the protracted and distorted discussion" about the appointment during the five months the post had been vacant "resulted in a situation in which he (Knowles) would not be able to function effectively in this critical position."

The news media—press, radio and television—generally assigned the opposition to Dr. Knowles to conservative members of Congress led by Senate Republican Leader Everett M. Dirksen (R., Ill.) and to the AMA.

Throughout the public controversy before the appointment, the AMA confined its comment to a short statement that it had suggested several names to Mr. Finch for the post and that the Association "favored the appointment of someone who would represent the broadest scope of medicine and would not be too closely oriented to any one segment of medicine or the health field." Dr. Knowles was not one of the physicians on the AMA list.

A few days after the nomination of Dr. Egeberg, Dr. Dwight L. Wilbur, the AMA President, said: "During the last five months the American Medical Association has been identified repeatedly as a force opposing appointment of Dr. John H. Knowles as Assistant HEW Secretary for Health and Scientific Affairs. We held our silence during the last months of nationwide publicity because we agreed with Secretary Finch to make our suggestions to him and then say no more. We did that. The Knowles protagonists obviously did just the opposite. . . . In a true sense, we never opposed Dr. Knowles. But we did not support him because we had alternative recommendations."

Those recommended by AMA for the position, Dr. Wilbur said, included:

—Dr. W. Clarke Wescoe, former chancellor of the University of Kansas, "who withdrew soon after because of personal reasons."

—Dr. Richard S. Wilbur, Palo Alto Clinic, chairman of the Council of the California Medical Association, and former chairman of the Board of California Blue Shield, "who happens to be my nephew, a fact which complicated the situation, but who the AMA felt was a well-qualified man for this position."

—Dr. John R. Hogness, dean of the University of Washington School of Medicine, "who serves in the AMA House of Delegates, at high level in the Association of American Medical Colleges, and who has many other distinguished achievements."

The AMA commended the selection of Dr. Egeberg. In a telegram to Finch, Dr. Wilbur said: "We look forward to a productive relationship with you and Dr. Egeberg in advancing the health care system for the benefit of all the American people. There are many complex factors involved that will call for the wholehearted dedication and contribution of all in the medical profession and in government."

"We believe Dr. Egeberg will be able to bring about the necessary close coordination between government and private sectors in the health care system," Dr. Wilbur said in a supplementary statement. "This is vital to constantly advance and expand the ability to provide quality health care for all Americans."

Dr. Egeberg, 65, is a large, bluff man of Norwegian stock who demonstrated a sense of humor at his first news conference. He is a member of the AMA and a diplomate of the American Board of Internal Medicine. Generally considered a moderate liberal on health matters, he served on several advisory commissions during the Kennedy and Johnson Administrations and on the state level in California. One of his major interests has been health care of the poor, and he arranged for the USC medical school to be the medical consultant for the neighborhood health center in the Watts district of Los Angeles.

At his first news conference in HEW, he classified delivery of health care as almost the Department's number one problem. He said Medicare now is "rather well established" in solving a problem. But Medicaid, he said, "has run afoul of a number of things, and I don't know that one can blame any one person or any group for this."

A member of the Army Medical Corps in World War II, he was personal physician and aide-de-camp to General of the Army Douglas MacArthur in 1944 and 1945.

Truth in Lending Act as Applied to Physicians

BERNARD D. HENELY, ESQ.
Des Moines

The Federal Truth in Lending Act became effective July 1, 1969. Regulation Z, which implements the Act, provides that the purpose of the legislation is "to assure that every customer who has need for credit is given meaningful information with respect to the cost of that credit. . . ." The Act is concerned primarily with the uniform disclosure of the cost of credit by all creditors. This consumer credit disclosure enables the customer to shop around for the lowest possible credit cost in much the same manner as he could shop around for the best buys on consumer goods.

The Truth in Lending Act applies to everyone who regularly extends credit to natural persons for personal, family, household or agricultural purposes (1) if a finance charge may be imposed, or (2) if it is agreed that the amount owing may be repaid in more than four installments.

Strangely enough, the medical profession is not specifically exempted from the provisions of the Truth in Lending Act even though its purpose would not appear applicable to physicians. *If physicians do not impose an interest or other finance charge on fees for professional services, they will not be subject to the provisions of the Act unless they agree with patients that a statement may be paid in more than four installments.* Physicians are, of course, bound by professional ethics to refrain from imposing a finance charge on fees for professional services not paid within a prescribed period of time. Yet even though no finance charge is imposed, a physician must comply with the Truth in Lending Act if there is an agreement with the patient for the payment of his bill in more than four installments.

Exactly what constitutes an "agreement" for the payment of a bill in more than four installments has not been defined by the Act or Regulation Z. It is generally understood, however, that the term "agreement" is not limited to an express agreement, but instead applies to implied agreements as well. Whether there has been an implied agreement for the payment of a bill in more than four installments is a question which must be answered on a case by case basis.

In the absence of such an agreement, the mere fact that a patient pays his bill in more than four installments does not cause the physician to be covered by the Act.

A physician who does make arrangements with a patient for the payment of his fees in more than four installments should include the required disclosures on his statement, and furnish a copy to the patient.

It should be noted that the disclosures required by the Act must be spelled out in great detail, must be conspicuous, and must be located on the statement as required by Regulation Z. It is beyond the scope of this article to present an in-depth analysis of all the applicable rules, computations, and the required usage of certain terms. Accordingly, if a physician becomes subject to the Act by agreeing to permit a patient to pay his bill in more than four installments, he should seek the assistance of his lawyer.

The disclosures required under the Act depend on whether "open-end" or "closed-end" credit is extended. Open-end credit is credit extended from time to time pursuant to a plan under which customers are permitted to make purchases or obtain loans in return for a finance charge assessed each month on the unpaid balance. Prime examples are charge accounts and credit-card accounts. Closed-end credit is financing extended for a single transaction. Generally physicians coming under the Act would be extending closed-end credit. Consequently, the following discussion of the disclosure requirements is limited to closed-end credit.

The following items, if applicable, must be disclosed to the consumer in a closed-end credit sale: (1) Cash price of the property or service; (2) Amount of downpayment; (3) Difference between downpayment and cash price; (4) Finance charge, in dollar amount and annual percentage rate; (5) Date on which finance charge begins to accrue, if different from the date of the transaction; (6) Other items which are included in the amount financed but which are not a part of the finance charge, e.g., taxes not included in cash price, fees paid for search or release of any security interest, license, title, and registration fees, charge for any insurance purchased in lieu of perfecting any security interest; (7) The number, amount, and due dates or periods of payments scheduled to repay the indebtedness; (8) Total of payments; (9) Charges for late payments; (10) Description of any security interest and identification of the property secured; (11) Unpaid balance of cash price; (12) Prepaid finance charge and required deposit balance; (13) Amount financed (unpaid balance minus prepaid finance charge and required deposit balance); (14) Deferred cash price (cash price, plus amount of finance charge and all other items not included in the finance charge); (15) Penalty charge for prepayment; (16) Method of computing unearned portion of finance charge; (17) Identification of creditor.

Many of the disclosure items, such as the finance charge and security interest, would be inapplicable to physicians and could therefore be eliminated from the billing statement.

It might be noted, as a matter of interest, that the disclosure requirements concerning open-end

Mr. Henely is an attorney with Dickinson, Throckmorton, Parker, Mannheimer and Raife.

credit and the extension of credit for the purchase of real estate vary somewhat from the closed-end credit disclosures outlined above.

The Truth in Lending Act also imposes disclosure requirements on credit advertising, and in addition restricts the use of garnishments as a method of implementing debt collection.

From this brief discussion, one can conclude that the Truth in Lending Act is one of the broadest pieces of federal consumer legislation in recent years. *However, for a majority of physicians who do not impose a finance charge and do not agree to the payment of a bill in more than four installments, the Act does not require any changes in the normal office procedure.*

Mayo Clinical Reviews

November 3-5, and 10-11

As in previous years, the Mayo Clinical Reviews will be presented twice this fall, on November 3, 4 and 5, and on November 10, 11 and 12—Monday, Tuesday and Wednesday in each instance. More than 1,000 physicians attended last year. Those wishing to attend should communicate with Mr. M. G. Brataas, Mayo Clinic, Rochester, Minnesota 55901, indicating the session they prefer. The registration fee is $20.

Monday

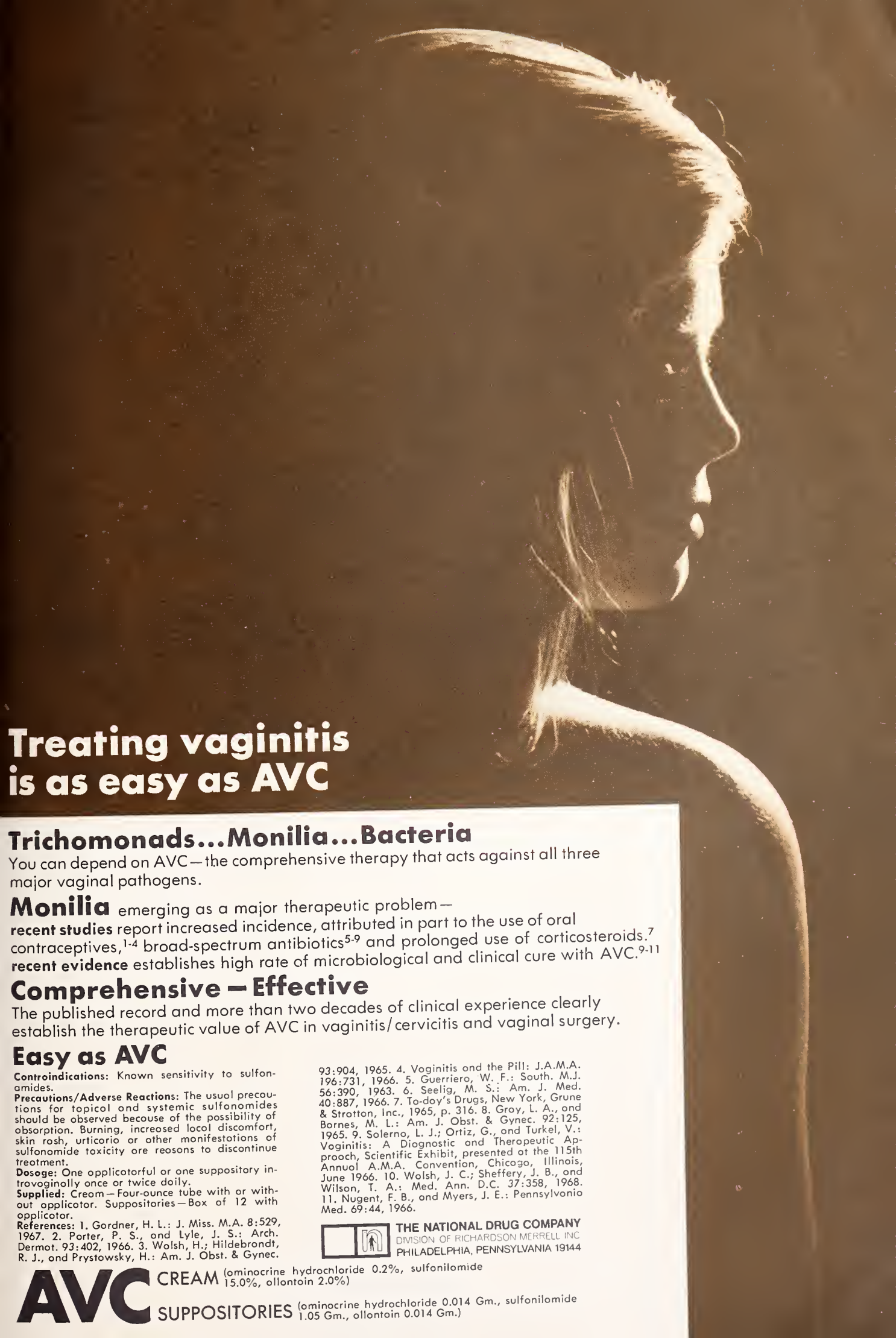
8:35 a.m. "Radioisotopes in Measurement of Renal Function"—F. Maher
8:55 a.m. "Special Management Problems in Diabetes: Pregnancy and Insulin Resistance"—P. J. Palumbo
9:25 a.m. "New Cardiac Drugs and Newer Understanding of Old Cardiac Drugs"—K. G. Berge
9:45 a.m. "Indications, Maintenance and Failure of Pacemakers"—H. T. Mankin
10:35 a.m. "Treatment of Malignant Melanoma"—J. C. Ivins
10:55 a.m. "Closed Irrigation Suction Treatment of Wound Infections"—P. J. Kelly
11:15 a.m. "Total Hip Prosthetic Replacement"—M. B. Coventry
12:15 p.m. LUNCHEON, Heritage Hall, Kahler Hotel
"Mayo Medical School"—R. D. Pruitt
1:45 p.m. "What the Face Tells the Neurologist"—Allen Dale
2:05 p.m. "Transient Ischemic Attacks"—R. G. Siekert
2:25 p.m. "Head Injuries"—B. M. Onofrio
3:20 p.m. "Burn Therapy"—J. N. Simons
3:40 p.m. "Automotive Medicine"—J. M. Janes
4:10 p.m. "Worms and Welfare"—J. H. Thompson
4:30 p.m. "Recurrent Aphthous Stomatitis"—C. Reeves
8:00 p.m. "Parkinsonism and L-Dopa"—R. P. Dinapoli, M. D. Muenter, C. S. MacCarty *et al.*
"Treatment of Rheumatoid Arthritis: Medical, Surgical and Physical Medicine"—L. F. A. Peterson, R. L. Linscheid, *et al.*

Tuesday

8:30 a.m. "Anxiety and Its Communication"—R. M. Steinhilber
8:50 a.m. "Detection of Learning Disorders"—Wendell Swenson
9:10 a.m. "Contact Lenses"—J. A. Dyer
9:45 a.m. "Differential Diagnosis of Hypochromic Anemias"—J. W. Linman
10:05 a.m. "Evaluation of Bleeding Patient"—E. J. W. Bowie
10:55 a.m. "Usefulness of Central Venous Catheter in Anesthesia and Surgery"—J. D. Michenfelder
11:15 a.m. "Anesthesia Management of Patients With Heart Disease Having Noncardiac Surgery"—J. T. Martin
12:00 noon LUNCHEON ROUNDTABLES
1:45 p.m. "Portal Hypertension"—M. A. Adson
2:05 p.m. "Recent Advances in the Surgical Treatment of Congenital Heart Disease"—D. C. McGoon
2:25 p.m. "Postoperative Psychosis"—R. Morse
3:20 p.m. "Use of Gastroscopy in Clinical Practice" R. F. Kettering
3:40 p.m. "Differential Diagnosis of Malabsorption Syndromes and the Usefulness of Jejunal Biopsy"—J. R. McPherson
4:10 p.m. "Current Concepts of Calcium Metabolism and Renal Stone Formation"—L. Smith
4:30 p.m. "Urinary Infection in Children and Vesecoureteral Reflux: Diagnosis and Treatment"—P. P. Kelalis
8:00 p.m. "Visual Clues to the Diagnosis of Gastrointestinal and Systemic Disease"—C. G. Moertel, J. M. Kiely, *et al.*
"Acute Abdominal Pain"—D. C. McIlrath
"Hypo-gonadal"—A. B. Hayles, M. D. Cloutier and J. Paris

Wednesday

8:30 a.m. "Prediction of Penicillin Hypersensitivity Reaction"—R. G. VanDellen
8:50 a.m. "Hearing Loss and Noise"—L. D. Hedgecock
9:20 a.m. "Newer Trends in the Management of Common Dermatoses"—H. O. Perry
9:40 a.m. "Cutaneous Drug Reactions"—R. K. Winkelmann
10:30 a.m. "Clinical Diagnosis and Treatment of Pharyngitis"—E. J. O'Connell
10:50 a.m. "Indications for Tonsillectomy and Adenoidectomy"—J. B. McBean
11:10 a.m. "Management of Asthma"—G. B. Logan
1:45 p.m. "Preoperative and Postoperative Treatment of Patients With Chronic Respiratory Disease"—A. D. Sessler
2:05 p.m. "Problems of Long-Term Artificial Ventilation"—E. P. Didier
2:25 p.m. "Selecting the Optimum Time for Elective Pediatric Surgery"—H. B. Lynn
3:00 p.m. "Contraception, 1969"—R. A. Smith
3:20 p.m. "Evaluation of the Infertile Couple"—R. B. Wilson



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You can depend on AVC—the comprehensive therapy that acts against all three major vaginal pathogens.

Monilia emerging as a major therapeutic problem—
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Dosage: One applicatorful or one suppository intravaginally once or twice daily.
Supplied: Cream—Four-ounce tube with or without applicator. Suppositories—Box of 12 with applicator.

References: 1. Gardner, H. L.: J. Miss. M.A. 8:529, 1967. 2. Porter, P. S., and Lyle, J. S.: Arch. Dermat. 93:402, 1966. 3. Walsh, H.; Hildebrandt, R. J., and Prystowsky, H.: Am. J. Obst. & Gynec. 93:904, 1965. 4. Vaginitis and the Pill: J.A.M.A. 196:731, 1966. 5. Guerriero, W. F.: South. M.J. 56:390, 1963. 6. Seelig, M. S.: Am. J. Med. 40:887, 1966. 7. Today's Drugs, New York, Grune & Stratton, Inc., 1965, p. 316. 8. Gray, L. A., and Barnes, M. L.: Am. J. Obst. & Gynec. 92:125, 1965. 9. Solerno, L. J.; Ortiz, G., and Turkel, V.: Vaginitis: A Diagnostic and Therapeutic Approach, Scientific Exhibit, presented at the 115th Annual A.M.A. Convention, Chicago, Illinois, June 1966. 10. Walsh, J. C.; Sheffery, J. B., and Wilson, T. A.: Med. Ann. D.C. 37:358, 1968. 11. Nugent, F. B., and Myers, J. E.: Pennsylvania Med. 69:44, 1966.

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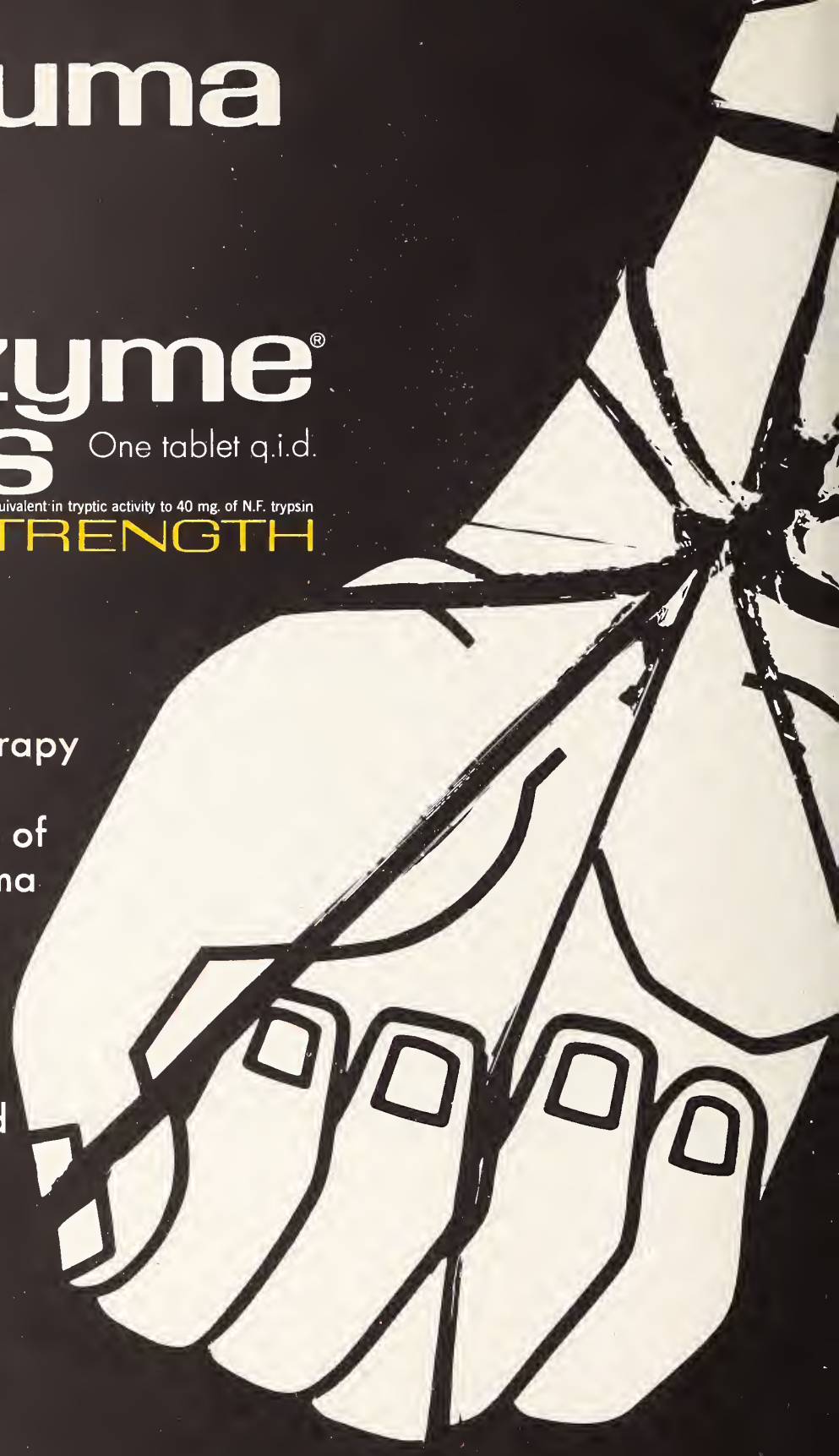
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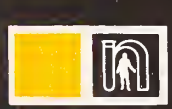
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AMA Congress on Occupational Health

The Twenty-ninth AMA Congress on Occupational Health will be conducted on Monday and Tuesday September 15 and 16 at Stouffer's Riverfront Inn, St. Louis. There will be no registration fee, and the program is acceptable for 10½ elective credit hours by the AAGP. A block of rooms has been set aside for registrants, and reservations should be made by writing to the Inn, mentioning the Congress on Occupational Health.

Monday, September 15

9:10 a.m. ADDRESS—Gerald D. Dorman, M.D., president of the AMA

9:35 a.m. SYMPOSIUM ON AVIATION MEDICINE
- "Disaster Medical Care at Airports"—F. C. Jackson, M.D., Pittsburgh
- "Preparation of Overseas Travelers"—N. A. Pace, M.D., New York City
- "Medical Aspects of General Aviation Safety"—S. R. Mohler, M.D., Washington, D. C.

11:05 a.m. "Pollution Problems of the Petroleum Industry"—Kieffer Davis, M.D., Bartlesville, Oklahoma

11:35 a.m. "Radiation Protection of Industrial Workers"—Thomas S. Ely, M.D., Rochester, New York

2:00 p.m. SYMPOSIUM ON AGRICULTURAL HAZARDS
- "Health and Safety Problems of Agricultural Machinery"—L. W. Knapp, Jr., U. of I. Institute of Agricultural Medicine
- "Prevention and Treatment of Acute Pesticide Poisoning"—Thomas H. Milby, M.D., Berkeley, California
- "Other Medical Aspects of Rural Occupational Health"—Ben N. Saltzman, M.D., Mountain Home, Arkansas

4:00 p.m. "Whiplash"—Charles J. Frankel, M.D., Charlottesville, Virginia

4:30 p.m. "Hiring the Hard-Core Disadvantaged"—Frank J. Kelly, M.D., Amarillo, Texas

Tuesday, September 16

9:00 a.m. "Absenteeism and 'Presenteeism' in Industry"—David J. Smith, M.D., Pittsburgh

9:30 a.m. SYMPOSIUM ON THE NURSE'S ROLE IN PREPLACEMENT EXAMINATIONS
- "Nurse Assistance to the Examining Physician"—Edna Watson, R.N., Anderson, Indiana
- "Pre-Placement Health Screening by Nurses"—Donald C. Bews, M.D., Montreal, Quebec
- "Reaction"—R. Lomax Wells, M.D., Washington, D. C.

11:00 a.m. "Rehabilitation"—John S. Young, M.D., Phoenix, Arizona

11:30 a.m. PRESENTATION OF ANNUAL PHYSICIAN'S AWARD OF THE PRESIDENT'S COMMITTEE ON EMPLOYMENT OF THE HANDICAPPED

12:00 noon PHYSICIAN'S AWARD LUNCHEON
- "U. S. Man on the Moon"—Charles A. Berry, M.D., director of medical research and operations, NASA Manned Spacecraft Center, Houston

2:00 p.m. SYMPOSIUM ON MEASUREMENT OF PERMANENT PARTIAL IMPAIRMENT IN WORKMEN'S COMPENSATION
- "Orthopedics"—George E. Scheer, M.D., St. Louis
- "Heart Disease"'—Harold I. Griffeath, M.D., San Francisco
- "Psychological Aspects"—Alexander H. Hirschfeld, M.D., Detroit
- "AMA Rating of Impairment"—Quentin W. Mack, M.D., Boise
- "IAIABC Recommendations"—Harry W. Dahl, Iowa Industrial Commissioner, Des Moines

Conference on Rehabilitation of Stroke Victims

The outlook for victims of severely damaging strokes has historically been one of the enigmas of medical science. Progress in the development of methods which may help dispel the uncertainty facing stroke patients, and their families, will be described at a conference being held September 19 and 20 at the Pick-Nicollet Hotel, Minneapolis, under the joint auspices of the American Rehabilitation Foundation (ARF) and the Social and Rehabilitation Service of the Department of Health, Education, and Welfare.

Keynote speaker will be Dr. Stanley W. Olson, Director, Division of Regional Medical Programs, Department of Health, Education, and Welfare. Reporting and participating in panel discussions will be some 25 nationally recognized authorities on stroke and rehabilitation.

Findings will be presented in a series of eight sessions, each featuring a major presentation from a member of the project staff, followed by discussions by a group of panelists. The topics for the eight sessions are: Approaches to Research on Completed Stroke; Measurements of Improvement in Completed Stroke; Statistical Approaches to Multivariant-Multidisciplinary Research; Rehabilitative Predictors in Completed Stroke (two sessions will be devoted to this topic); Follow-up Study I: Rehabilitative Predictors in Completed Stroke; Follow-up Study II: Environmental Correlates of Differential Outcomes, and Implications for Future Research.

All interested persons, whether engaged in one of the health professions related to rehabilitation or active in some other branch of medicine, education or government, with an interest in stroke are cordially invited to attend, according to Dr. Thomas P. Anderson, who directs the stroke predictor project at ARF and is program chairman of the conference.


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COMING MEETINGS

IN STATE

Sept. 10-11 **Conference on Pediatrics and Fall Meeting of Iowa Chapter, American Academy of Pediatrics,** Memorial Union, Iowa City.

Sept. 19-20 **Iowa Ophthalmological and Otolaryngological Society,** Ramada Inn, Iowa City.

Sept. 19-20 **Symposium on Cardiovascular Disease sponsored by Iowa Heart Association in cooperation with Great Plains Heart Association, Council on Clinical Cardiology and American Heart Association,** University of Iowa College of Medicine, Iowa City.

Sept. 22-23 **Eleventh Annual Midwest Interprofessional Seminar on Diseases Common to Animals and Man,** Iowa State University, Ames.

CONTINENTAL U. S.

Aug. 3-6 **Twelfth Annual Postgraduate Course in Pediatrics sponsored by University of Colorado School of Medicine,** Aspen High School, Aspen, Colorado.

Aug. 6-8 **Seminar on Neurology and Neurosurgery,** Veterans Hospital, Fort Snelling, Minneapolis.

Aug. 10-15 **American Congress of Rehabilitation Medicine,** Palmer House, Chicago.

Aug. 11-16 **Postgraduate Course in General Practice Review sponsored by University of Colorado School of Medicine,** Denver.

Aug. 14-16 **Postgraduate Course on Peptic Ulcer sponsored by American Gastroenterological Association,** Aspen, Colorado.

Aug. 21-23 **West Virginia State Medical Association,** Greenbrier, White Sulpher Springs.

Aug. 21-23 **Postgraduate Course on Clinical Gerontology sponsored by University of California, Los Angeles, and American College of Physicians,** Shoreham Hotel, Washington, D. C.

Aug. 24-29 **American Geriatrics Society,** Sheraton-Park, Washington, D. C.

Aug. 26-29 **Wyoming State Medical Society,** Jackson Lake Lodge, Moran, Wyoming.

Aug. 26-Sept. 1 **Pacific Dermatologic Association,** Princess Kaiulana Hotel, Honolulu.

Sept. 2-6 **International Tuberculosis Conference (20th),** Waldorf-Astoria, New York.

Sept. 4-6 **Scoliosis Research Society,** Disneyland Hotel, Los Angeles.

Sept. 4-6 **American Association of Obstetricians and Gynecologists,** Homestead, Hot Springs, Virginia.

Sept. 5-7 **Tenth Annual Cardiovascular Symposium of Tidewater Heart Association,** Williamsburg Lodge and Conference Center, Williamsburg, Virginia.

Sept. 9-12 **Utah State Medical Association,** Salt Palace, Salt Lake City.

Sept. 10-12 **Montana Medical Association,** Finlen Hotel, Butte.

Sept. 11-13 **Postgraduate Course on Myocardial Infarction sponsored by American College of Chest Physicians,** Dallas.

Sept. 14-17 **Washington State Medical Association,** Olympic Hotel, Seattle.

Sept. 14-18 **Scientific Seminar on Drug Therapy sponsored by Pennsylvania Medical Society,** Host Farm Resort Motel, Lancaster.

Sept. 14-20 **American Society of Clinical Pathologists,** Palmer House, Chicago.

Sept. 15-16 **29th Annual AMA Congress on Occupational Health,** Stouffer's Riverfront Inn, St. Louis.

Sept. 16-20 **Congress of Neurological Surgeons,** Sheraton-Boston Hotel, Boston.

Sept. 17-19 **Postgraduate Course on Immediate Care of Sick and Injured sponsored by University of Nebraska Medical Center,** Nebraska Center, Lincoln.

Sept. 17-20 **Colorado Medical Society,** Broadmoor Hotel, Colorado Springs.

Sept. 19-20 **Delivery of Health Care to Children (American Academy of Pediatrics),** Tan-Tar-A Resort, Lake of the Ozarks, Missouri.

Sept. 19-20 **National Conference on Stroke sponsored by American Rehabilitation Foundation,** Pick-Nicollet Hotel, Minneapolis.

Sept. 19-20 **Postgraduate Course on Advances in Management of Heart Disease,** University of Wisconsin Medical Center, Madison.

Sept. 20-27 **Joint Meeting, Ninth International Congress of Neurology and Fourth International Congress of Neurological Surgery,** New York.

Sept. 21-24 **American Association of Medical Clinics,** Americana Hotel, New York.

Sept. 23-25 **Kentucky Medical Association,** Kentucky Hotel, Louisville.

Sept. 23-27 **Oregon Medical Association,** Portland.

Sept. 24-27 **Nevada State Medical Association,** Hotel Nevada, Ely.

Sept. 26-Oct. 3 **American Academy of General Practice,** Philadelphia.

Sept. 28-Oct. 2 **Western Orthopaedic Association,** Broadmoor Hotel, Colorado Springs.

Sept. 28-Oct. 3 **Michigan State Medical Society,** Sheraton-Cadillac, Detroit.

Sept. 29-Oct. 3 **Hospital Medical Staff Conference sponsored by University of Colorado School of Medicine,** YMCA Conference Center, Estes Park.

ABROAD

Aug. 10-14 **9th International World Congress of Otorhinolaryngology,** Mexico City, Mexico.

Aug. 10-15 **6th International Congress of Chemotherapy,** Tokyo.

Sept. 1-5 **International College of Surgeons, United States Section, 34th Annual Meeting,** Montreal.

Sept. 14-17 **European Association for Study of Diabetes, 5th Annual Meeting,** Montpellier, France.

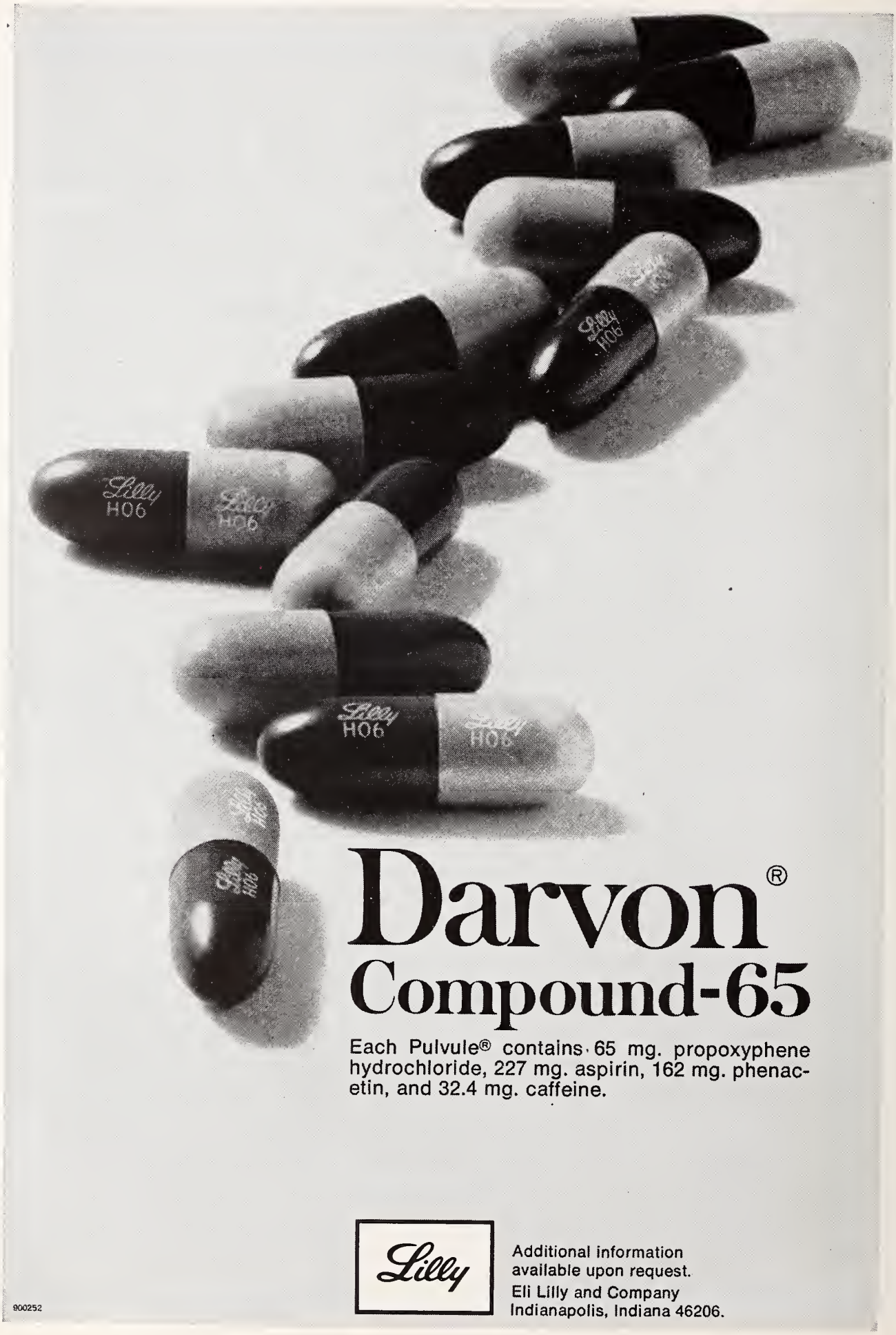
Sept. 22-27 **International Congress on Rural Health,** Usuada, Japan.

Sept. 25-27 **French Congress of Medicine (37th),** Paris.

Immediate Care of the Sick and Injured

Immediate care of the sick and injured will open the continuing education schedule for the University of Nebraska College of Medicine. This course is open to members of the allied health professions as well as physicians. It will be conducted at the Nebraska Center, in Lincoln, Wednesday, Thursday and Friday September 17, 18 and 19.

Dr. John German, an associate professor of surgery, is coordinator of the course. The $30 registration fee includes three luncheons and one dinner.



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Scientific Articles

Care of the Low Birth Weight Infant

GEORGE L. BAKER, M.D.
Iowa City

In Iowa each year approximately 3,500 infants weigh less than 2,500 Gm. (5 lbs. 8 oz.) at birth. Twelve hundred or so of them weigh less than 2,000 Gm. (4 lbs. 3 oz.). These infants have a much higher perinatal mortality rate than do full-sized infants. Further, those of the small infants who survive are much more likely to be handicapped than are normal infants. The eventual goal is to prevent as many premature births as possible, but at the present time many Iowa physicians are responsible for the care of these small infants. Some current concepts regarding that care are to be presented here.

CLASSIFICATION

Until recently the single criterion from prematurity was a birth weight of less than 2,500 Gm.[1] But classification systems utilizing gestational age as well as birth weight have recently been proposed.[2, 3] The simplest and perhaps most useful of these is that of Yerushalmy[2] (Figure 1). It recognizes that some small infants are mature (Group III), that some large infants are immature (Group IV), and that there is a different prognosis for each group. Such a classification is important in planning the management of each specific infant, and thus is useful to the physician who cares for neonates.

ENVIRONMENTAL CARE

For a variety of reasons the small infant requires more careful enviromental control than do the larger infants in the nursery—increased

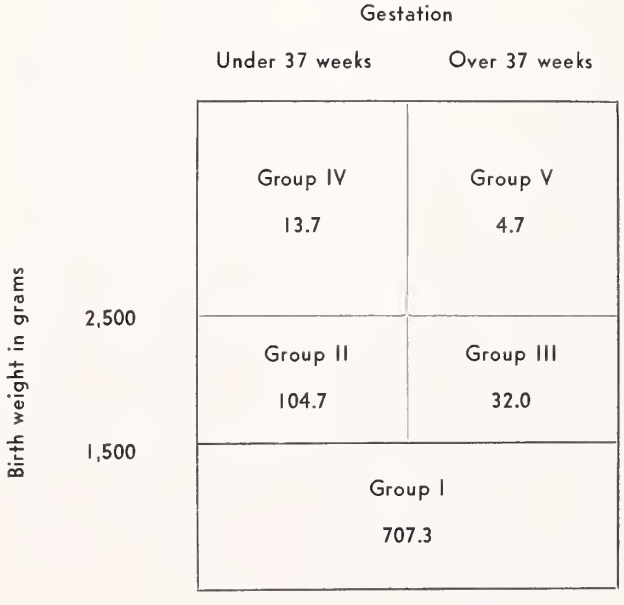


Figure 1. Graphic presentation (from Yerushalmy[2]) of the division of newborn infants into five groups on the basis of birth weight and/or gestational age, and the neonatal mortality rate for each group (from data for a three-year period in New York City).

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heat loss, susceptibility to infection, and frequent need for added oxygen.

Such an infant must be kept warm. It has been shown that if kept in a neutral thermal environment, his oxygen requirements are lowest.[4] Such an environment can be achieved by keeping the skin of the anterior abdominal wall at 97°F. when the infant is in an incubator away from outside windows. Incubators with servo-control mechanisms permit the maintenance of such temperature control with some ease. Lacking a servo-control mechanism, the smaller the infant the warmer the incubator must be if thermal neutrality is to be achieved. Oliver has described the usual incubator temperatures required (Table 1).[5]

TABLE I

GUIDE FOR INCUBATOR TEMPERATURE SETTINGS FOR NEUTRAL THERMAL CONDITIONS IN NEONATES

Weight (Gm.)	Incubator Air Temperature (°F.)
Less than 1000	95-97
1000-1500	93-95
1501-2500	91-93
2501-3500	90-93
Over 3500	88-91

Variations in the temperature of surrounding radiating objects may appreciably influence heat loss. The relative humidity should be between 40 and 60 per cent. Modified from T. K. Oliver, Jr.[5]

Humidity in the range of 80-85 per cent is adequate. It has been demonstrated that higher levels are of no greater value, and actually hinder nursing care by causing condensation on the incubator wall and reducing visibility.

Because the small infant is quite susceptible to infection, he should be isolated from other infants and must not be handled unnecessarily. The former is best accomplished through the use of an isolation incubator and through good hand-cleansing by the attending personnel. Separate rooms or cubicles are not necessary if proper incubator technique is used. Handling should be gentle, and care should be taken to avoid tiring the newborn infant. There are differences of opinion as to how much handling is optimal.

Concepts regarding proper oxygen use have varied greatly in recent years, from essentially unrestricted use prior to the introduction of modern incubators and the appearance of retrolental fibroplasia, to rigid controls of ambient concentration with little regard for the condition of the individual infant. Presently the general principle is never to use oxygen without a clinical indication, regardless of the size or age of the infant. When increased oxygen is used, the level should be monitored and recorded every four hours without fail, and the need for it must be reassessed at least twice daily. Because of the altered fetal hemoglobin-oxygen dissociation curve, cyanosis is a relatively late sign of hypoxia. A useful clinical method has been suggested by Warley and Gairdner.[6] The ambient oxygen concentration is lowered just to the point at which cyanosis appears, and then it is raised by one fourth. For example, if cyanosis appeared at 40 per cent, the oxygen concentration is raised to 50 per cent. A more precise estimate is obtained by measuring the PO_2 in the arterial blood. At present the potential toxicity of augmented oxygen is receiving increased attention, and pulmonary fibroplasia has been described following the administration of positive-pressure oxygen in high concentrations.[7, 8]

FEEDING

Feeding programs for low birth weight infants have varied greatly in both types of formulas and feeding methods attempting to determine optimal conditions for growth and development. The term, full-sized infant is prepared to fast for some time before fluid and calories become available to him from colostrum and then from human milk, but the pre-term infant or the small full-term infant is not. A period of acute starvation during rapid brain growth may predispose the pre-term (Group II) infant to some of the well known later sequelae. The small full-term infant (Group III) is more likely to develop symptomatic hypoglycemia if he is not fed early.[9] The small infant should receive fluid and calories during the first six hours of life, either intravenously or by nasogastric tube or nipple, as tolerated. Initial feeds of 10 per cent glucose in water permit evaluation of gastrointestinal function, and if tolerated they may be followed by a 13 cal./oz. low-solute formula such as Similac® or Enfamil.® If this is tolerated at two feeds, the concentration can be increased to 20 cal./oz. By the third or fourth day, if all goes well, one can administer 130 cal./Kg./day divided into eight feedings. The volume tolerated per

feeding then determines the concentration needed. The concentration required to achieve these parameters is usually 24 calories per ounce in infants above 1,750 Gm., and 30 calories per ounce below that. Iron-fortified formula should be started on the fourth or fifth day. Total body iron is low in the small infant, and although he does not begin to utilize iron early, he does absorb a portion of such iron, and the "anemia of prematurity" can be largely avoided.[10] We have rarely had to transfuse premature infants since we began feeding iron-fortified formulas routinely in the newborn nursery.

PROBLEMS

Resuscitation. Use of the Apgar scoring system[11] for all neonates helps identify those infants who will require resuscitation, and it should be universally employed. Resuscitation is needed more frequently in the small infant, and it should be undertaken with great care and gentleness. Because of the decreased airway size, a greater degree of obstruction occurs in small infants for each millimeter of edema resulting from unnecessary intubation or other trauma.

The upper airway should be cleared by means of a bulb aspirator. Positive-pressure oxygen can be given by mask or Safar airway, in small rapid puffs. Most often these two steps will provide adequate aeration, and no further instrumentation will be required.

No drugs should be used routinely. Most stimulants not only are ineffective but also increase oxygen consumption, thus defeating their purpose. A specific narcotic antagonist such as nallorphine may sometimes be indicated, but since any overdose can produce depression, great care must be exercised. Bicarbonate or other basic solutions may be useful in the event of severe acidosis, but their ultimate role in resuscitation is not yet clear.

Heat from a radiant heater during resuscitation is most helpful in preventing a partial hypothermia, which again increases oxygen need and contributes to morbidity.

Infections. The neonate has little or no immunity to many bacterial infective agents, and in addition does not localize infections satisfactorily.[12, 13] Thus any infection may spread rapidly and produce a pansepsis. Clinical signs are generally nonspecific, and include lethargy, jaundice, poor feeding, hypotonia, hypo- or hyperthermia, and diarrhea. It is important for nurses to maintain constant surveillance in an effort to detect early subtle changes in the condition of the infant.

If the fetal membranes were ruptured for more than 24 hours prior to delivery, or if there are other indications that the amniotic fluid may have been infected, the infant should be isolated until the results of cultures from venous blood and gastrointestinal contents are known. A lumbar puncture is done when clinical signs of sepsis are present, and intravenous therapy is instituted if cells or bacteria are present. If the infant manifests any clinical signs of infection, if the amniotic fluid is obviously infected, or if the mother becomes febrile, the infant should be given ampicillin, 50 to 100 mg./day, and kanamycin, 15 mg./Kg./day, divided into two equal doses. If cultures indicate that another drug should be used, the therapy may be changed, but the new agent must be selected with care, for many are especially toxic in the newborn infant.[12]

Congenital Malformations. Congenital malformations are more frequent in small infants of term age (Group III). These include ones with chromosome abnormalities and several other major malformation syndromes.[14] Several methods can be used for early detection.

If the examination of the freshly-cut umbilical cord reveals only one umbilical artery and one vein, the infant's risk of malformation is 30 to 50 per cent.[15, 16] Because the absence of one umbilical artery occurs in 0.5 to 0.7 per cent of all deliveries, the physician should examine each cord when he cuts it in order to identify this high-risk group of infants.

Passing a soft catheter through the nares and esophagus, and into the stomach, rules out choanal atresia, tracheo-esophageal fistula, and upper-gastrointestinal obstruction. The same catheter may be passed into the rectum to prove patency of the lower tract. Such a survey permits early detection of potentially fatal malformations, and is suggested for use in all infants. Suspected malformations of the gastrointestinal tract in the first hours or days of life should be investigated promptly.

Persistent tachypnea, tachycardia, cyanosis or hepatomegaly should alert one to the possibility of cardiovascular malfunction. Any in-

fant with these findings should have an EKG and a chest x-ray. If abnormalities exist, early referral for cardiac catheterization and surgery may be life-saving.

Hyaline Membrane Disease. Hyaline membrane disease or respiratory distress syndrome is the leading cause of death in premature infants. Characterized by progressive respiratory difficulty in the first hours of life, this disease occurs frequently in infants who have been hypoxic or otherwise stressed, besides being born prematurely. Monitoring the baby's respiratory effort by means of a Silverman score[17] permits early recognition of respiratory distress. Nursing personnel can record the score hourly and thus define both the degree of respiratory distress and the direction in which a change is occurring. Any infant who develops respiratory distress should have chest x-rays promptly, in order to rule out other causes such as pneumothorax.

Several excellent reviews document the lack of a specific means either of prevention or of therapy.[18-20] The most practical means of treatment remains general environmental support, correction of acidosis either by intravenous administration of bicarbonate or by assisted ventilation, and supplying additional fluids and calories on account of the infant's increased work load.

Such infants need constant and excellent nursing care, and they benefit from supportive measures instituted before they become exhausted from respiratory effort. Early referral to a facility providing such support may improve the prognosis for such infants.

Hypoglycemia. Hypoglycemia is more frequently a problem for the small infant of long gestation (Group III) than for the infant who is of appropriate size for his length of gestation (Group II).[9] The undergrown infants have a higher metabolic rate and require more energy substrate per gram of body weight than do other infants of the same size.[21] Early frequent feedings are imperative for these infants, as well as careful observation for symptoms of hypoglycemia such as "jitteriness," cyanosis, apathy, convulsions, a weak or high-pitched cry, limpness, difficulty in feeding and eye-rolling.[22] Frequent blood-glucose determinations may be needed, together with intravenous administrations of a concentrated glucose solution. If a reliable blood-glucose level is under 20 mg./100 ml., the infant should receive 1-2 ml./Kg. of 50 per cent glucose, followed by 75 ml./Kg./day of 15 per cent glucose. In the small infant whose carbohydrate stores are already depleted, glucagon will not be effective, and definitive therapy should be instituted immediately.

Jaundice. Jaundice is frequently a problem in the small infant, and it may reach dangerous levels when Rh sensitization is not present. The degree of hyperbilirubinemia has been decreased by the use of early feedings[23] and by exposure to increased light.[24] Phenobarbital,[25] though apparently effective, should be reserved until further studies indicate its safety, for it affects many enzyme systems, and some of its effects may not be beneficial.

SUMMARY

Low birth weight infants contribute disproportionately to infant morbidity and mortality rates. In order to permit the greatest possible number of such infants to survive and become fully-productive adults, special attention and care must be given them in their critical first few hours or days of life. Some of the special needs and problems of these small infants have been reviewed.

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Changing Concepts in the

Evaluation and Radiation Therapy of Hodgkin's Disease

JOSEPH D. HALL, M.D., and
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In 1832 THOMAS HODGKIN reported seven cases of generalized lymphadenopathy and splenomegaly, and in 1865 Wilks suggested that the name "Hodgkin's disease" be attached to the clinical entity which now bears Hodgkin's name.

Although Hodgkin's disease is a relatively uncommon disorder, it has received much attention in the past few years, due in part at least to recent advances in the staging, pathologic classification and therapy of the condition—all of which have improved our knowledge of it and of the prognoses of patients afflicted with it. The concept of a cure for Hodgkin's disease is relatively new, and probably is foreign to some, but in the past 11 years a cure for it has actually been demonstrated.[1]

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EVALUATION AND STAGING

Once the diagnosis of Hodgkin's disease has been established, it is mandatory that certain tests and examinations be performed in order that the disease may be staged accurately. The following were recommended by the Rye, New York, Conference on Hodgkin's Disease:[2]

1. A complete history-taking, with special attention to fever, pruritis and night sweats.

2. A complete physical examination.

3. A blood count, including a white blood cell count and differential, a hematocrit and/or a hemoglobin, a platelet count and an erythrocyte sedimentation rate.

4. Postero-anterior and lateral chest films, and whole-lung tomograms in the presence of hilar adenopathy.

5. A skeletal survey or, if that is not feasible, an x-ray examination of the thoracolumbar spine and pelvis.

6. Retroperitoneal studies, including lower-extremity lymphography and, if possible, intravenous pyelography.

7. A bone-marrow examination with a histo-

logic section of a marrow clot or, if possible, a needle (or open-marrow) biopsy.

8. Liver-function tests including a serum alkaline phosphatase.

9. Renal-function tests including a urinalysis.

10. Documentation of cutaneous anergy.

On some occasions it may be necessary to biopsy the nodes demonstrated by lymphography, because the criteria for early involvement are still being defined.[3]

The leukocyte alkaline phosphatase has also been helpful in evaluating Hodgkin's disease, particularly in follow-up examinations.

Staging represents the extent of the disease, and is of primary importance in establishing the type of treatment and the prognosis. The stages recommended by the Rye, New York, Conference are as follows:[2]

Stage I: Disease limited to the lymph nodes of one anatomic region (Sub-group 1), or to two contiguous anatomic regions (Subgroup 2) on the same side of the diaphragm.

Stage II: Disease in more than two contigous or in two non-contiguous regions on the same side of the diaphragm.

State III: Disease on both sides of the diaphragm, but not extending beyond the involvement of lymph nodes, spleen or Waldeyer's ring.

Stage IV: Involvement of the bone marrow, lung parenchyma, pleura, liver, bone, kidneys, gastrointestinal tract, or any other tissue or organ in addition to the lymph nodes, spleen or Waldeyer's ring.

Each stage is subdivided into "a" and "b" sections, indicating the absence or presence, respectively of systemic manifestations—fever, night sweats and pruritis. Systemic symptoms usually indicate more advanced disease.

There are other methods of staging Hodgkin's disease, but the above system is the most widely used and accepted.

PATHOLOGIC CLASSIFICATION

In 1944 Jackson and Parker proposed a classification consisting of granuloma, paragranuloma and sarcoma. Those categories have been widely used, despite their poor prognostic value. Paragranuloma and the sarcoma group have some prognostic value, but each of them comprises only about 10 per cent of the cases of Hodgkin's disease. Thus 80 per cent of the cases fall in a group where the histologic picture is of little help in predicting the outcome for the patient.

In the early 1960's Lukes and Butler proposed a new classification, and their scheme was modified by the Rye, New York, Conference. It consists of four groups: lymphocytic predominance, nodular sclerosis, mixed cellularity and lymphocyte depletion.[4] Nodular sclerosis is the most frequent histologic type, and it has a propensity for mediastinal involvement.[5]

The above types are related to Jackson and Parker's in the following manner.

1. *Lymphocyte predominance* includes paragranuloma and some cases of the granulomatous type.

2. *Nodular sclerosis* is a subdivision of the granulomatous type based primarily on the presence of collagenous bands.

3. *Mixed cellularity* includes granuloma cases without this characteristic.

4. *Lymphocyte depletion* includes the old sarcoma group and some cases formerly classified as granuloma.[5]

The essence of the new classification is the subdivision of Hodgkin's granuloma by identifying nodular sclerosis as a separate group and by enlarging the lymphocyte predominance and depletion groups.[5]

From studies done so far, it appears that this histopathologic classification correlates well, even within different stages.[5]

CORRELATION OF STAGES, HISTOLOGIC TYPES AND PROGNOSES

In general, the lower the stage, the better the prognosis. In Keller and Kaplan's recent study, the five-year survival figures for the various stages were as follows:[5]

Stage I	89 per cent
Stage II	63 per cent
Stage III	41 per cent
Stage IV	20 per cent

(These figures are of the actuarial survival type.) The importance of accurate staging is obvious. The results of studies by Peters and Middlemiss[6] and by Easson[7] show 10- and 15-year survivals which support the concept that cures are possible in this disease.

The histologic type also influences the prognosis. Lymphocyte predominance has the best prognosis, and it is followed by nodular sclerosis. The worst prognosis is found in the mixed-cellularity and lymphocyte-depletion classifications.[5] The five-year survival rate for lymphocyte predominance is 94 per cent; for nodular sclerosis, 78 per cent; and about 39 per cent for mixed cellularity and lymphocyte depletion.[5]

There is a correlation between histologic types and stages, with the advanced stages and systemic symptoms tending to be associated with the lymphocyte-depletion and mixed-cellularity types—the less favorable ones. Lymphocyte-depletion types are largely Stages III and IV, and the more favorable lymphocyte predominance is found almost exclusively in Stages I and II. There also is a high degree of correlation between systemic symptoms and advanced stages.[5]

Age and sex can be correlated with prognosis. Young patients—those under 30 years of age—survive longer than those over 30. Females enjoy a better survival rate than males. In males and older patients it has been observed that advanced clinical stages and unfavorable histologic types frequently account for deaths.[5]

THERAPY

The fact that tissue affected by Hodgkin's disease is radiosensitive has been known for many years. The first documented radiation treatment of Hodgkin's disease was performed by Pusey in 1902, only seven years after the discovery of x-rays.[8]

For the proper initiation of therapy, the stage of the disease must first be established. After this has been done, treatment can be properly categorized as either definitive or palliative. Definitive treatment should be carried out in all Stage I and Stage II cases. Palliative radiation therapy is reserved for Stage IV. Chemotherapy is also useful in Stage IV. The proper goal of therapy in Stage III disease has not been definitely established, and another four or five years, at least, will elapse before this problem is resolved.[3] In the meantime, vigorous definitive treatment should be carried out when at all possible.

A comment is in order about what is meant by "definitive" and "palliative" radiation therapy—the energy levels employed, the dosages administered and the times involved. Modern radiation therapy of Hodgkin's disease can be administered effectively only with megavoltage equipment. This means that no less energy should be employed than that emitted by Co^{60}. In addition, the therapy unit should be constructed in such a manner as to allow the treatment of large fields, like those illustrated in Figure 1. They are commonly referred to as "mantle" or "thunderbird" and "inverted Y" fields. The former covers the lymph nodes of the neck from the tip of the mastoid bone inferiorly, the supraclavicular regions, the axillae, the mediastinum and the hilar areas. The latter includes the periaortic, iliac, femoral and inguinal lymph-node areas. The spleen may also be included in this field, and it often is. However, because of the unavoidable irradiation of the left kidney along with the spleen, surgical removal of the spleen may be preferable.

The basis for this aggressive treatment lies in the generally accepted idea that the spread of Hodgkin's disease is usually orderly, proceed-

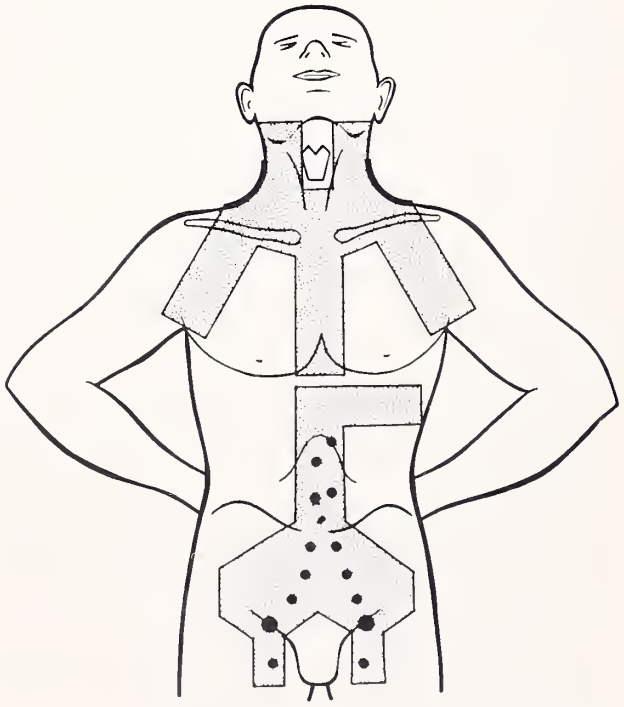


Figure 1. The anterior "mantle" and the "inverted Y" fields are shown above. A full course of therapy is administered to the appropriate field. Therapy is then directed to the other field as indicated. In this particular illustration the spleen is included in the "inverted Y" field. A similar field is applied posteriorly.

ing from one node-bearing area to the next. The progression apparently is orderly in 80 to 85 per cent of patients.[9, 10] Therefore the minimal area treated should include the immediately involved region and the areas adjacent to it. This is particularly true of Stages Ib and IIb. In Stages Ia and IIa it may not be necessary, and the question is currently being evaluated. When areas of new involvement appear following high-dose therapy, they usually are contiguous to previous treatment fields. When discontiguous involvement has been documented, the area most commonly skipped is the mediastinum. The explanation may be that the thoracic duct has provided a channel for direct or retrograde spread between the left neck and the para-aortic region.[9]

In patients with Stage III Hodgkin's disease, treatment to all areas involved, plus adjacent uninvolved areas, probably constitutes the best therapy. This calls for use of both the "mantle" and the "inverted Y" fields. The spleen is also irradiated, or it may be removed surgically.

Patients tolerate this large-volume irradiation reasonably well. There are some people who report only minimal problems with patient tolerance,[8] but their experience is not necessarily typical. The most common serious problems are hematologic, and are due to the large amount of bone marrow which unavoidably is included in the treatment fields. They usually take the form of leukopenia and thrombocytopenia. In some instances therapy must be discontinued for one or two weeks so that the white blood cell count can be kept above 2,000 and the platelet count above 50,000/cu. mm.[8] Occasionally it is necessary to transfuse anemic patients.

Other areas of potential problems involve structures which unavoidably are included in the treatment fields. Most of the spinal cord is irradiated, and a few instances of transverse myelitis have occurred. Fortunately we have not experienced that complication. Pericardial effusion resulting from mediastinal irradiation has also been reported. It may be that the manner in which the irradiation is delivered has some significance, i.e., whether irradiation is delivered mainly through the anterior fields, or equally through the anterior and posterior fields. Usually a portion of the lungs is included in the mantle field, and radiation fibrosis of such portions is not uncommon. Fortunately this usually presents no great problem unless there is significant preexisting lung disease. Particular attention must be paid to excluding the kidneys from the treatment field. This precaution is especially important when doses are to be in excess of 2,300r, because acute radiation nephritis with resultant hypertension will develop in approximately 50 per cent of patients when that dosage level in exceeded.[11]

The radiation therapist is faced with the possibility of overdosage, with resultant radiation reaction in the deep tissue when abutting fields are used. Another problem akin to this is the recurrence of disease in previously irradiated areas, or recurrence at the edge of a previously treated field. It is obvious that radiation therapy for Hodgkin's disease is not a casual undertaking.

The optimal dose for the eradication of Hodgkin's disease is 4,000 rads given at the rate of 1,000 rads per week, or 200 rads per treatment. The recurrence rate is less than 5 per cent when this time-dose relationship is used. Contrastingly, if a dose of only 1,000 rads is administered, a recurrence rate of 60 to 80 per cent can be expected.[9] These figures are in accord with Kaplan's statement that the recurrence rate is inversely proportional to a radiation dosage below 4,000 rads administered in a period of four weeks.[12]

At times the rate of irradiation must be slowed down because of patient intolerance. This is especially likely when fields over the abdomen are being irradiated. Thus the minimum amount of time in which a patient with Hodgkin's disease can be treated is four weeks, and the period can range up to 12 weeks or more, depending upon the stage of the disease and the patient tolerance.

SUMMARY

In recent years there has been some significant progress in the care and treatment of patients with Hodgkin's disease. It has resulted from the recognition that the disease usually spreads in an orderly fashion from one lymph-node area to the next adjacent one. Lymphography has enhanced our ability to stage this disease accurately, and correlating the different stages with the Lukes-Butler histologic classification, with systemic symptoms and with survival statistics has aided our prognostic ability. Survivals have increased as a

result of the aggressive radiation therapy that was pioneered by Dr. M. Vera Peters, and initially reported in 1950.[13] Dr. Peters also pointed out the importance of staging and of observing systemic symptoms.

If the patient is to benefit from these advances, his physician must employ this aggressive therapy, or refer him to someone who will.

In conclusion, it may be said that with increasing knowledge of Hodgkin's disease and with a continuation of aggressive therapy, a more optimistic outlook is in order for the patient suffering from this malady.

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12. Kaplan, H. S.: Evidence for tumoricidal dose level in radiotherapy of Hodgkin's disease. Cancer Research, Vol. 26, Part 1, (June) 1966, pp. 1221-1224.
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Pediatrics Conference in Iowa City

September 10-11

The following program will be presented at the Memorial Union of the University of Iowa, in Iowa City, on Wednesday and Thursday September 10 and 11 under the cosponsorship of the U. of I. Department of Pediatrics, the Iowa Chapter of the American Academy of Pediatrics and the Division of Maternal and Child Health of the State Department of Health. The registration fee will be $35 for AAP members and $40 for other physicians. Advance registrations and reservations at the Iowa House, which adjoins the Memorial Union, should be arranged with the Director of Conferences, Iowa Memorial Union, Iowa City 52240. The program has been accredited for nine hours by the American Academy of General Practice.

Wednesday, September 10

9:05 a.m. "Department of Pediatrics, 1969"—Donal Dunphy, M.D.

9:20 a.m. "The Role of Mycoplasmas as Causes of Diseases in Children"—Floyd Denny, M.D., head of pediatrics, University of North Carolina

10:45 a.m. "Temperature, Food and Growth in the Neonatal Period"—William Silverman, M.D., chief, Perinatology Section, Children's Hospital of San Francisco

12:00-1:45 p.m. LUNCH-DISCUSSION GROUPS (Cost of lunch included in registration fee.)
Neonatal Bilirubinosis
Lower Respiratory Tract Infection in Children

2:00 p.m. SMALL-GROUP DISCUSSIONS AND DEMONSTRATIONS
Pediatric Neurology
Pediatric Cardiology
The Medical Student at Iowa
Ambulatory Pediatrics
Learning Disorders

4:00 p.m. BUSINESS MEETING, Iowa Chapter, American Academy of Pediatrics

4:15 p.m. Registrants who are not members of the Iowa Chapter of AAP are invited to tour the sick-infant facility and infant intensive-care areas. Selected interesting cases will be presented.

6:30 p.m. SOCIAL HOUR AND DINNER (Cost of dinner included in registration fee.)

Thursday, September 11

9:00 a.m. "The Undersized Newborn"—Dr. Silverman

9:40 a.m. "Children and Cholesterol"—Samuel J. Fomon, M.D.

10:00 a.m. "Cardiac Evaluation by Computers"—Robert Durnin, M.D.

10:50 a.m. "Management of Streptococcal Infections in Children"—Dr. Denny

11:30 a.m. "Emergency Infant Transport System"—George Baker, M.D.

Genetic Counseling in Medical Practice: Part I

HANS ZELLWEGER, M.D.
Iowa City

THE ASTOUNDING ADVANCES obtained in the genetic sciences during the past decade have led to a greater awareness of heredity and of its implications for the American people. Young couples and parents-to-be want to know the risks to which their prospective progeny will be subject, especially if either the young man or the young woman has a relative afflicted with a genetic or a cytogenetic disease. Questions such as those illustrated by the following examples are often encountered by physicians in their daily practice.

Example 1 (See also Figure 1). A young man (III_4) who has two brothers and a maternal uncle with Duchenne type muscular dystrophy is engaged to a girl (III_5) from an apparently healthy family. Her family seriously objects to the intended marriage, fearing that their children could inherit muscular dystrophy. Neighbors, including a physician, had advised the girl to break her engagement. A geneticist was consulted, and explained to the family that the muscular dystrophy of II_3, III_3 and III_4 was an X-linked condition with almost complete penetrance in males carrying the mutant gene. Since the fiancé had already passed the age at which the disease usually reaches its end stage, there was no reason to believe that he carried the mutant gene. The geneticist also informed the family that a male never transmits an X-linked disease to his male offspring. Thus the muscular disease in the fiancé's family would not justify any objection to the union of the young couple.

Example 2 (See Figure 2). A 21-year-old married woman, gravida 2, abortus 1, requests a medical (or, rather, a eugenic) abortion. Her husband had a mongoloid sister who was born when his mother was 42 years of age. He also had a second cousin with trisomy 21. The young mother fears she may bear a mongoloid child, and she is particularly worried because of her preceding abortion. (She has read in a magazine that there is an increased abortion rate in familial mongolism.)

The obstetrician is most reluctant to perform the operation without consulting a geneticist, and the geneticist interprets the situation as follows. The mongolism of the husband's sister probably was due to the mother's advanced age, and hence had no genetic implications. The case of mongolism in a dis-

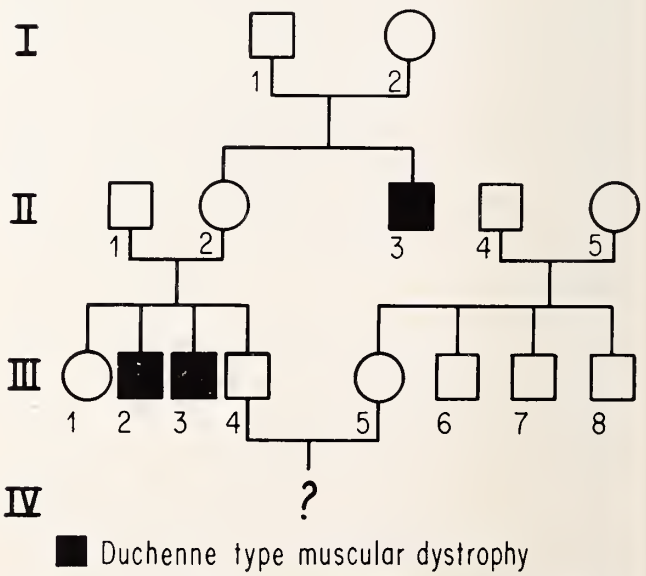


Figure 1. Do the prospective offspring of III_4 and III_5 risk being affected with Duchenne type muscular dystrophy, as were II_3, III_2 and III_3?

Dr. Zellweger is a professor of pediatrics at the University of Iowa College of Medicine. The research on which the statements contained herein are based was supported by a grant from the National Foundation for Neuromuscular Diseases, New York, N. Y. This paper was prepared for the Postgraduate Course on Obstetrics and Gynecology presented at the University of Iowa in February, 1969.

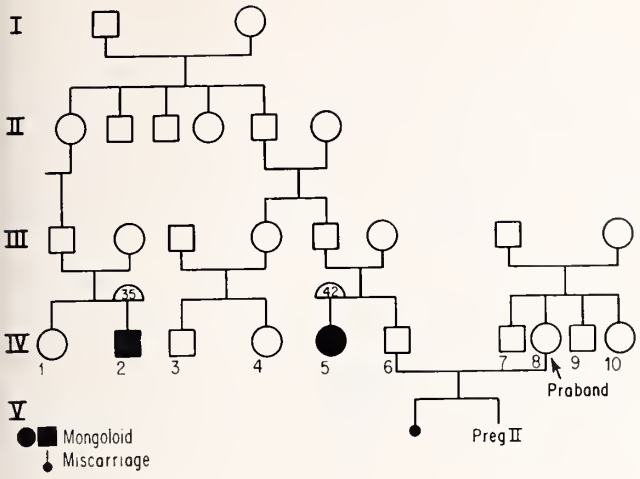


Figure 2. Does IV_8 have an increased risk of having a mongoloid child because the sister (IV_5) of her husband IV_6 and his second cousin (IV_2) are mongoloid?

tant relative of the husband was almost certainly coincidental, and likewise was of no significance to the outcome of the young mother's pregnancy. To reassure her fully, a chromosomal analysis was performed, particularly in view of the preceding spontaneous abortion. Both husband and wife were karyotypically normal. The geneticist concluded that the risk of her bearing a mongoloid child was no greater than that of other women of her age—about one in 2,000. The young couple was satisfied with these explanations, and the geneticist did not feel compelled to perform a chromosomal analysis of the amniotic aspirate, by means of which it is possible to discover chromosomal anomalies during intrauterine life.

These are just two examples of many that emphasize how important the need for genetic advice has become. Today's physicians—notably pediatricians and obstetricians—must be knowledgeable about genetics, or at least must know where genetic information can be obtained. Thus the teaching of genetics must be strengthened in the medical curriculum, and clinics where formal genetic counseling can be given must be created. It is the purpose of this paper to discuss a few aspects of genetics and to allude briefly to some principles of genetic counseling.

There are three categories of genetic diseases: (a) diseases due to chromosomal aberrations (cytogenetic diseases); (b) diseases due to a single mutant gene or gene pair (classic Mendelian inheritance); and (c) diseases due to multiple minor genes (polygenic or multifactorial inheritance). Part I of this article, contained in this issue of the JOURNAL OF THE IOWA MEDICAL SOCIETY, will deal with just the first of the three categories. The latter two categories will be discussed in Part II, which is to appear in the following (September, 1969) issue.

CYTOGENETIC DISEASES

Cytogenetic diseases were discussed in a paper by this author in the April and May, 1968, issues of this JOURNAL. Here, therefore, it will suffice to mention a few points that are of importance for the genetic counselor.

The incidence of chromosomal aneuploidies is quite high. About one of 200 live births shows a chromosomal aneuploidy. The incidence of mongolism is about one in 600 live births. (See Table 1.)

TABLE 1

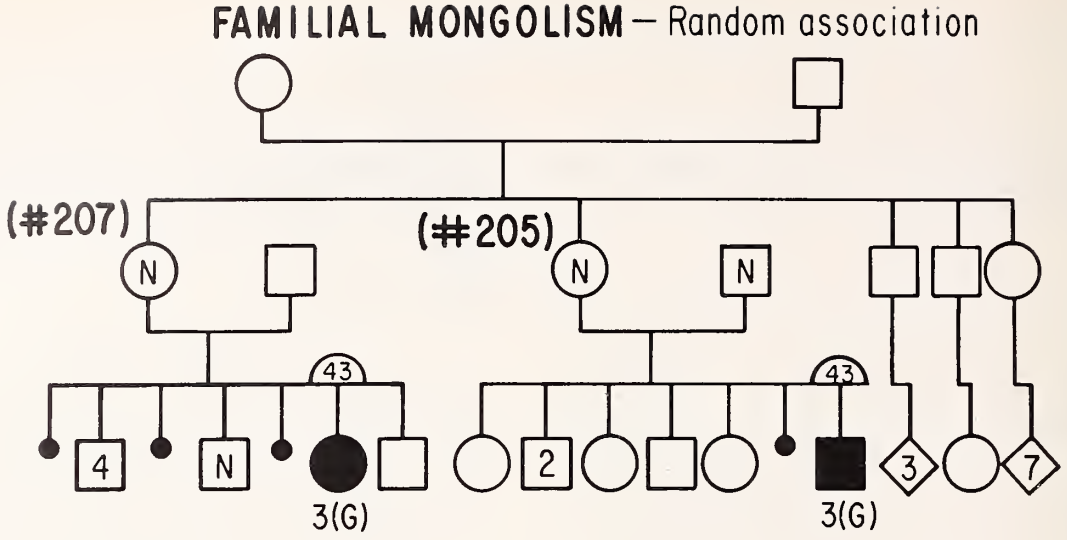
INCIDENCE OF CHROMOSOMAL ANEUPLOIDIES

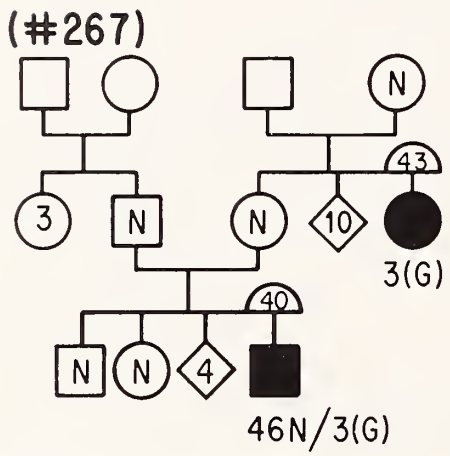
Trisomy 21	1 in 600 live births
Trisomy 18*	1 in 3,000 live births
Trisomy 13*	1 in 5,000 live births
Trisomy XXX	1 in 800 live births
Sex Chromosomal trisomy XXY	1 in 800 live births
Sex Chromosomal trisomy XYY	1 in 600 live births
Monosomy X*	1 in 2,500 live births

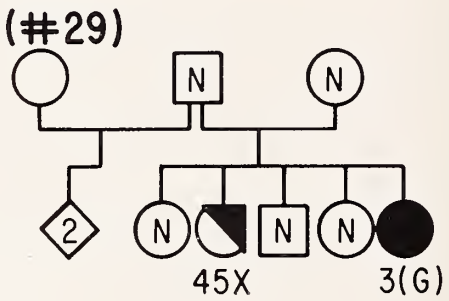
* Fetal wastage of trisomies 18 and 13 and monosomy X is very high. Only one of about 15 to 20 monosomic zygotes reaches the end of gestation.

The great majority (over 95 per cent) of all chromosomal aneuploidies are sporadic events —in particular most trisomies, other polysomies and mosaicisms, and more than 50 per cent of the unbalanced translocations such as translocation mongoloids, etc. Parents of an aneuploid child most often can be assured that the risk of their having another aneuploid child is too small to be regarded as a decisive factor in their family planning. This is true even in most instances where another aneuploidy has occurred in the wider kindred.

In view of the high incidence of chromosomal aneuploidies, it is not at all surprising to find, occasionally, more than one case in a kindred as the result of mere coincidence. Familial occurrence of mongolism has been widely studied and will be discussed here as the main example of familial aneuploidies. The probability of two trisomy 21's occurring at random in a kindred of 50 to 100 relatives









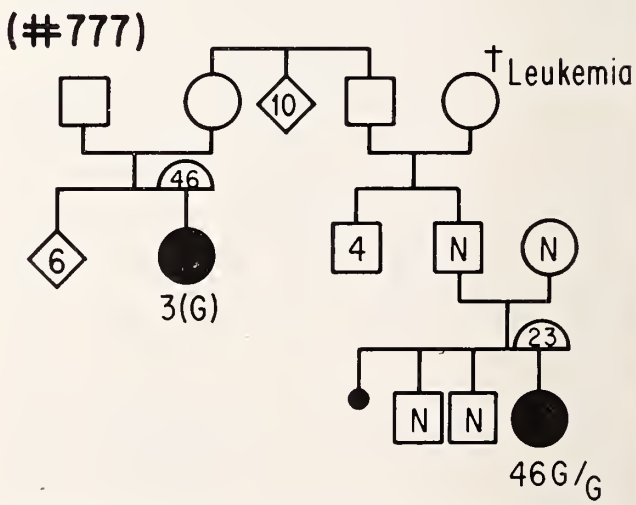


Figure 3. (a) #207 Two mongoloid children with trisomy 21, born when each mother was 43 years old. The mothers and fathers were karyotypically normal. In view of the rather advanced age of the mothers it is most likely that age-dependent non-disjunction occurred in the ovogonia. In both instances the ovum with 24 chromosomes was fertilized. (b) #267 Random association of a case of mosaic mongolism and a case of trisomy 21 in a family. The proband, a mongoloid boy, revealed a chromosomal mosaicism with a euploid and a 21-trisomic cell population. His parents and siblings were karyotypically normal. A sister of his mother, born when her mother was 43 years old, had a monoclonal trisomy 21. (c) #29 Random association of monosomy X and trisomy 21 in a sibship. The parents and three siblings were karytopically normal. (d) #777 Random association of a case of trisomy 21 and a G/G translocation mongoloid in a family. The mother's age at the birth of the translocation mongoloid was 23 years. The mother's age at the birth of the trisomic mongoloid was 46 years.

amounts to about 1 per cent. In general, trisomy 21 in second cousins or more distant relatives is considered a coincidental finding, and even mongolism occurring in closer relatives is often coincidental, as is shown in Figure 3a. The occurrence of different aneuploidies within a family may be coincidental as well. (See Figures 3b-3d.)

Random association is therefore a relatively frequent cause of familial aneuploidy, yet it is by no means the only cause. Analysis of a large group of cases revealed that there are two main categories of non-coincidental familial aneuploidies: (a) familial occurrence of aneuploid patients whose parents are euploid, and (b) familial occurrence of aneuploid parents where at least one parent of the patient shows a chromosomal anomaly. We studied a few instances of familial trisomy 21 with euploid parents where the incidence of mongolism was far too high to be regarded as random association. We assumed, therefore, a genetically-determined tendency to meiotic non-disjunction. In this type of hereditary trisomy 21, a single case cannot be distinguished from any other sporadic case of trisomy 21. Thus it is impossible to predict in which instance a recurrence risk exists, and the following counseling practice has been adopted. If euploid parents have one 21-trisomic child, the risk of their having another 21-trisomic child is minor—perhaps only slightly (three times) higher than that of the mother of the same age who has not previously given birth to a mongoloid child. If euploid parents have two 21-trisomic children, the risk of their having another mongoloid child is probably major, and should be thought a significant factor in their future family planning. Although this prediction has not been proven beyond doubt, the presence of two mongoloids in one sibship represents such a disastrous experience that by all means any further such calamity should be prevented.

Besides the genetic tendency to meiotic non-disjunction, there apparently is a mutant gene which induces erroneous mitosis and leads to chromosomal mosaicism. (See Figure 4.) About 30 families have been reported thus far in which chromosomal mosaicism was transmitted as an inheritable, possibly autosomal dominant trait, with almost complete penetrance. (In contrast, the hypothetical gene

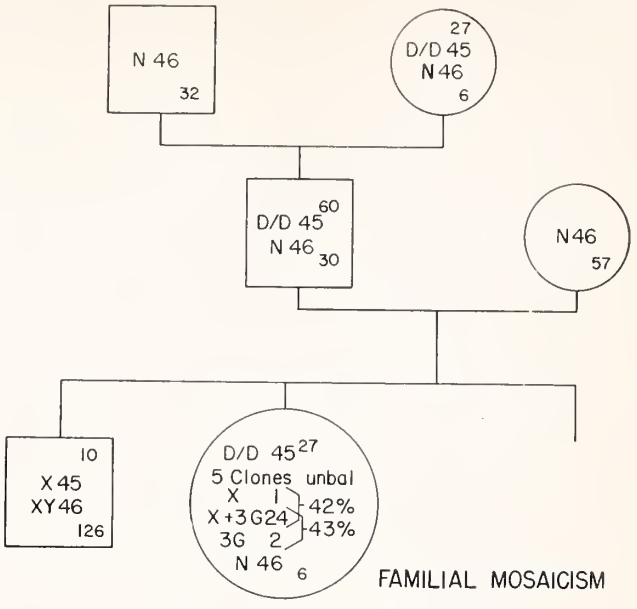


Figure 4. Pedigree of a family with chromosomal mosaicism in three generations. The proband, a girl with many mongoloid features, had seven different cell populations; her brother, with X/XY mosaicism, her father and her paternal grandmother were phenotypically normal. The two latter had a mosaicism with a karyotypically normal cell clone and one with a balanced D/D translocation.

leading to meiotic non-disjunction shows incomplete penetrance.)

In some families all affected members show the same mosaicism, and in other families various mosaicisms are found. Many of the mosaic individuals are phenotypically normal—a circumstance which makes eugenic counseling a difficult task.

Among the familial aneuploidies where at least one parent has a chromosomal anomaly, the following types can be differentiated: parental aneuploidy, parental mosaicism, familial balanced translocation and perhaps the presence of a familial marker chromosome.

Aneuploid individuals, if they reproduce, carry a major risk of transmitting the same or sometimes another aneuploidy to their offspring. Individuals with Klinefelter syndrome, trisomy 13, trisomy 18 and males with trisomy 21 do not reproduce. Mongoloid trisomic females can reproduce. Fifty per cent of the zygotes of such women will be trisomic (Figure 5), and in spite of a rather high fetal wastage, the risk of having a mongoloid child is very high and warrants sterilization of such mongoloid girls, especially if they are insufficiently protected.

Individuals with XXX or XYY sex-chromosomal trisomies also carry a higher risk of hav-

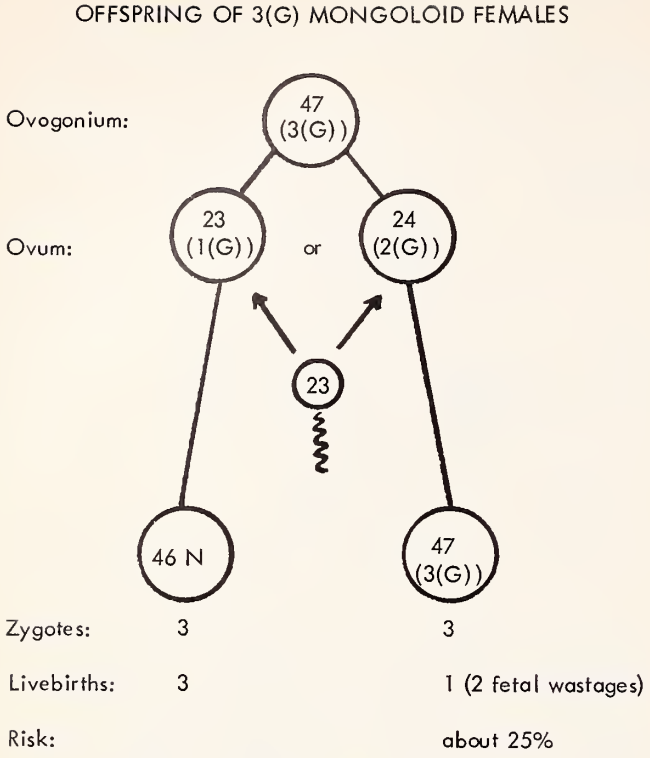


Figure 5. Meiosis of an ovogonium with trisomy 21. There is a 50/50 possibility for the ovum to be euploid (23-chromosome) or aneuploid (24-chromosome with two 21 chromosomes). In consequence there is a 50/50 possibility of the zygote's being euploid or 21-trisomic. Assuming that two out of three 21-trisomic fetuses are spontaneously aborted, one can estimate that about one out of four offspring of a mongoloid girl will be mongoloid. The other three will be phenotypically normal.

ing aneuploid offspring. Sex-chromosomal as well as autosomal aneuploidies have been found in their offspring. Exact risk figures are not yet available, but it appears that euploid gametes are at a selective advantage, and that offspring with normal karyotypes are more frequent than might be expected.

Individuals with chromosomal mosaicism and at least one aneuploid cell population may have aneuploid offspring—as have individuals with a monoclonal aneuploidy, provided the gonadal cell which participates in the formation of the zygote is aneuploid. The more aneuploid gonadal cells there are (ovogonia or spermatogonia), the greater is the probability of aneuploid offspring. The exact risk of a mosaic individual's having aneuploid offspring cannot be predicted, but it is acceptable to consider the risk as major.

Partial trisomy 21 due to an unbalanced D/G or G/G translocation is often a sporadic event, yet about 50 per cent or fewer of all translocation mongoloids have a parent with the same translocation in balanced form. Individuals with a balanced translocation run a major risk of transmitting the translocation in unbalanced form to their offspring. Female translocation carriers have a somewhat greater risk than do male translocation carriers. Families have been observed where a balanced D/G or G/G translocation was present in several generations and led to multiple cases of mongolism (Figure 6). Translocation mongolism is not dependent on maternal age. Eight per cent of the mongoloids borne by mothers under 30 years of age, and only one per cent of the mongoloids borne by older mothers show translocation mongolism.*

Translocations involving chromosomes other than those of the G group are rare. Balanced D/D translocations are next in frequency. Individuals with such translocations also show an increased tendency to have aneuploid offspring.

Finally, families have been reported in which a structural anomaly of a chromosome (a marker chromosome) occurred as a familial characteristic—for instance, a macrochromosome G, Y, D, etc. Whether or not such structural anomalies enhance chromosomal non-disjunction and hence increase the incidence of aneuploid offspring cannot be determined before the incidence of marker chromosomes in the population at large has been determined.

Addendum: Since this article was written, the method of chromosome analysis in amniotic fluid has been introduced in our laboratory. Chromosomal analysis of fetal cells is indicated whenever the risk of having a mongoloid child is greater than 1 per cent, e.g. in pregnant women over 40 years of age.

RECOMMENDED SHORT TEXTS ON GENETICS

1. Bartalos, Mihaly: Genetics in Medical Practice. Philadelphia, J. B. Lippincott Company, 1968.
2. Emery, A.: Heredity, Disease and Man. Berkeley, University of California Press, 1968.
3. Knudson, Alfred G.: Genetics and Disease. New York, Blakiston Company, div. of McGraw-Hill Book Company, Inc., 1965.
4. McKusick, Victor A.: Human Genetics. Englewood Cliffs, N. J., Prentice-Hall Book Company, 1964.
5. Reed, Sheldon C.: Counseling in Medical Genetics. Philadelphia, W. B. Saunders Company, 1963.

* Every woman under 30 years of age who has borne a mongoloid child should have a chromosomal analysis. The cytogenetic laboratory at the University of Iowa is prepared to perform this test not only for the mother but also for the father and for the mongoloid child.

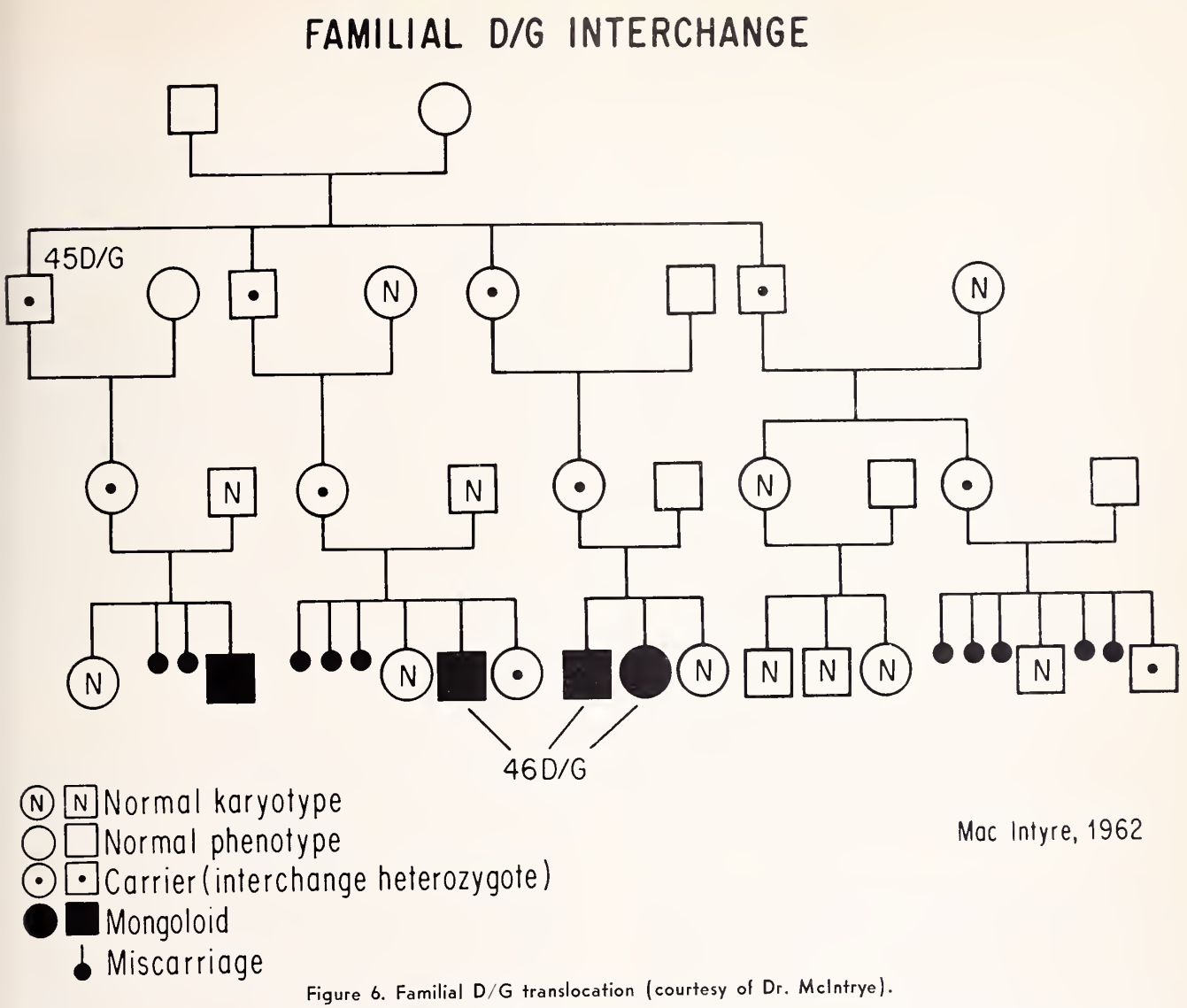


Figure 6. Familial D/G translocation (courtesy of Dr. McIntrye).

A Solution for the Generation-Gap Problem

E. R. Squibb & Sons, a division of Squibb, Beech-Nut, Inc. has a unique documentary film entitled "The New Generation" that stresses the positive and constructive aspects of our youth as seen through the lives of a young American couple. The 28-minute feature was premiered at the 118th Convention of the AMA in New York City last month, and is available to any physician who wishes to obtain it for group viewing in his local area.

A recently married couple in their early twenties was selected to tell the story of their generation. Both have strong feelings about society and the changes that are needed in it. They are out to win a world to their liking through constructive action, rather than through riots. They will achieve their goals simply by being what they are—"The New Generation," the leaders of tomorrow. Address Squibb at 460 Park Avenue, New York City 10022, or talk to the Squibb detail man.

Wisconsin Conference on Heart Disease

September 19 and 20

The staff of St. Mary's Hospital, Madison, and the Department of Postgraduate Medical Education of the University of Wisconsin Medical Center will present a program on recent medical and surgical advances in cardiac disease on Friday and Saturday September 19 and 20. The visiting speakers will include Dr. K. Alvin Merendino, head of surgery at the University of Washington, Seattle, and Dr. Gerald Schiebler, head of pediatrics at the University of Florida, Gainesville.

The conference will provide information on problems in the medical and surgical management of the cyanotic infant, of acquired heart disease in adults, and of traumatic and atherosclerotic vascular disease, among other topics.

For further information, address Thomas C. Meyer, M.D., chairman, Department of Postgraduate Medicine, 307 North Charter Street, Madison, Wisconsin 53706.

Computer Diagnosis

PETER L. REICHERTZ, M.D.
Columbia, Missouri

PLEASE BEAR WITH ME. I have to face two difficulties: (1) having a different linguistic background from yours, and (2) needing to use a vocabulary which, though derived from English, may sound strange to your ears. The first, naturally, is a result of my origin, though it is symbolic of the past and future of this country: integration and synthesis. The second is a consequence of the rapid development of the new science, computerology, which I am to discuss and which Teilhard de Chardin, a Frenchman and one of the greatest philosophers of our century, has called the legitimate result of evolution toward a higher complexity of human existence: a means of integration toward a pluralistic or corporate society, preserving the right, function and conscience of the individual.

Please let me add another aphorism, this one from a report of the President's Science Advisory Committee Panel on Computer Education, issued in February, 1967: "After growing wildly for years, the field of computing now appears to be approaching its infancy."

Now, let me ask some questions. How can such an infant challenge a profession that has inherited the art, mystique and wisdom of the priesthood of prehistoric times, with the human values of Hippocrates, the descriptive talents of Vesalius and Galenus, the first use of logical reasoning and scientific methods by Paracelsus, and the achievements of modern technology and natural sciences? Can a physician ever be replaced by a data-processing machine? Can a technique replace someone whose sacred vocation it is to take upon himself the burden of misery, desperation and hope of a sick and frightened human being?

Dr. Reichertz is an associate professor of medicine and is the associate director of the computer program at the University of Missouri School of Medicine. He made this presentation at the 1968 annual meeting of the Iowa Medical Society.

If a physician is replaceable, he should be replaced. Those who really fulfill all the requirements of the medical profession are not concerned by those questions, and in the near future will have at their disposal a new instrument that will have a strong impact upon the medical discipline and will have repercussions about which we can only speculate today. The reality, I am sure, will be far different from, and more complex than, anything we can imagine at this moment.

Let's return to the picture of infancy. Please allow me to tell you about the work of the computer-infant's pediatricians—or, more accurately, of its mentors. If you discover insufficiencies, bear in mind that you too had to learn to walk before you could run, drive a car or fly.

THE BASICS OF COMPUTER OPERATION

Let me briefly explain how a computer works,[20] though I am sure most of you already know. In essence, a computer is a calculator with tremendous speed, great storage capacity and additional data-handling and comparison capabilities. In brief, it is capable of performing logical operations. The heart of a computer is the central processing unit, where the logical and arithmetic operations are performed (Figure 1). Instructions specify what has to be done, and the way in which operations have to be performed. These instructions are stored in the core, the central memory. Data can reside in the core, too. The data and instructions are put into the core by communication mechanisms which we call input devices. The means of communication may be punched cards, typewriter-type devices, magnetic tape, disks or television-screen-like devices with alpha-numeric keyboards (and these last are what we have been concentrating upon at the University of Missouri).

The results are printed out by the computer, punched onto cards, put onto magnetic tape disks or drums, or displayed on cathode-ray-tube (CRT) screens. Data or results can be stored temporarily for later use on tape drives, disks, drums or storage media that are called data cells.

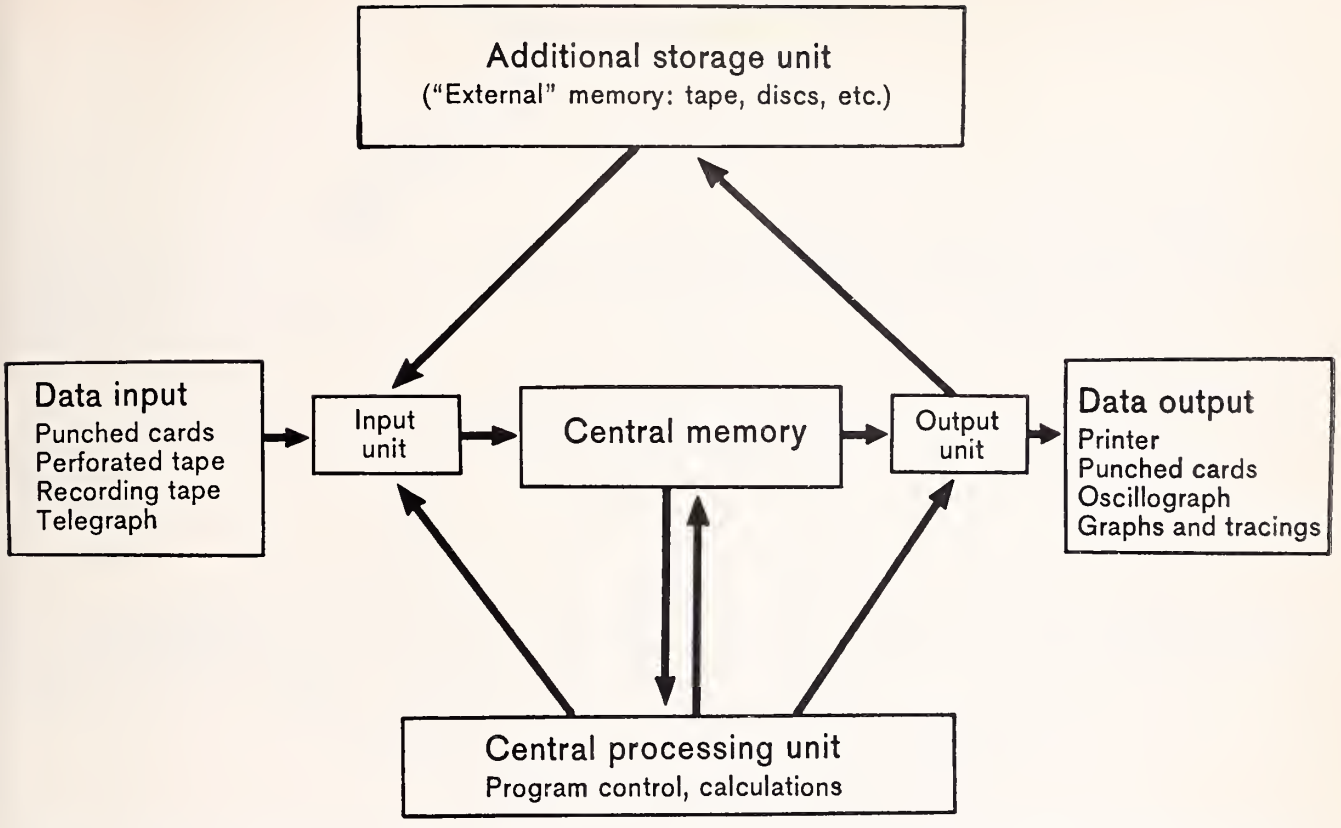


Figure 1. Basic architecture of a digital computer,[20] reproduced with permission from the publisher, Documenta Geigy.

We need not go into further detail, but you will come to an important conclusion from this crude description: *A computer cannot solve a problem on its own.* It has to be instructed, step by step. Thus—and now I am approaching the topic of this presentation—you cannot expect to obtain a perfect diagnosis by just feeding signs and symptoms into the computer. On the other hand, you cannot expect a perfect program to produce a perfect diagnosis when the submitted data have been incomplete or inaccurate.

FOR DIFFERENTIAL DIAGNOSIS THE HUMAN MIND IS NO LONGER ENOUGH

Now for the programming itself. One must either simulate the process of diagnosis, or better, bring it into an algorithm, making use of the specific functions and possibilities of a computer.

The process that a physician has gone through, heretofore, in diagnosing an illness has consisted of comparing the findings in the case at hand with descriptions that the doctor has heard or read, or with disease patterns in his own memory, developed over the years and based on patients whom he has seen (Figure 2).

The quality of a diagnosis is thus dependent on:

1. The quality of the data,
2. The knowledge and experience of the diagnostician, and
3. His ability to elaborate the diagnosis intelligently by recognizing the important features of a pathologic condition and by making evaluating comparisons.

Correct diagnosis can be expected only if all relevant information has been taken into account, and when the physician has considered all possible related diagnoses. It may happen that this evaluation process is biased by recent experiences or impressions which overlie the physician's long-term memory. It is immaterial, however, that this associative process leading to a diagnosis may already have begun while he was taking the patient's history. Rapid diagnoses made almost subconsciously are often falsely ascribed to intuition.

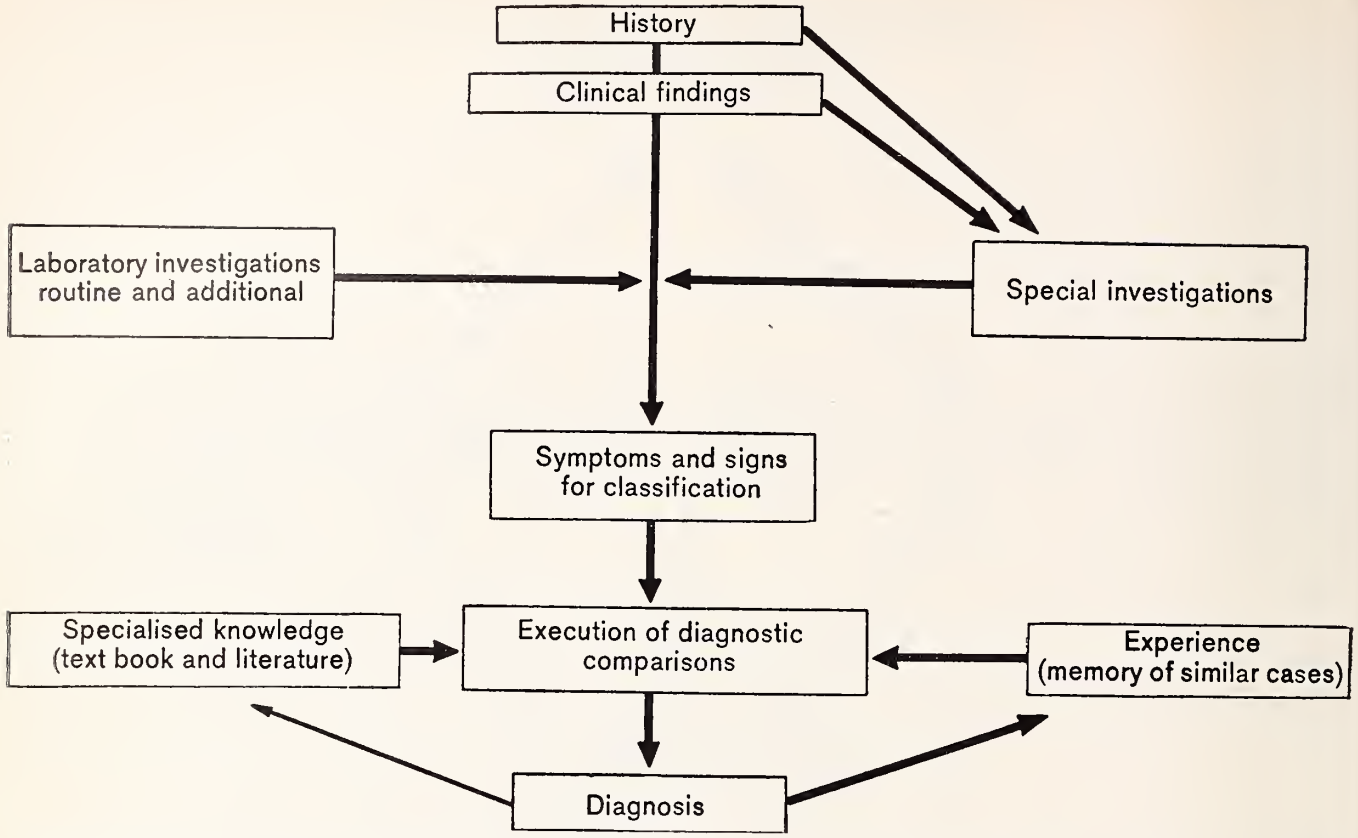


Figure 2. Block diagram of the diagnostic process.[20] In the practice of medicine the indicated procedures are not necessarily strictly sequential. The diagram is reproduced with the permission of the publisher, Documenta Geigy.

Such an assumption overlooks the long training which preceded professional competence.

Figure 2 shows that the physician compares his findings in an individual case with the literature regarding each possible disease, in so far as he is familiar with it, and with his individual experience. With the almost exponential growth of scientific information, it is no longer possible for the individual physician to have a complete knowledge even of a sub-specialty. Although such a comprehensive knowledge is not needed in the everyday practice of medicine, it is nonetheless interesting that tests have shown that the average physician has an incomplete knowledge of the signs and symptoms even of well-known conditions, and an insufficient familiarity with rare diseases.

These inadequacies can be explained in part by the fact that the number of identifiable individual diseases and syndromes has increased from about 5,000 to about 30,000 since the turn of the century, and that it probably will increase still further. However part of the difficulty may be that the descriptions of these conditions are not always precise enough to allow for possible individual variations in symptoms and signs. In attempting to make a comprehensive diagnosis, it is therefore desirable for the doctor to have all of the necessary information.

Only a limited amount of the personal experience which a diagnostician acquires can be passed on to others. Like every other scientific discipline, medicine strives to organize knowledge so that the acquisition of it will be less and less dependent on individual experience. This is an objective that is easier to achieve in medical research than in diagnosis and treatment, but the possibility of combining individual and group experience regarding the frequency and variability of symptoms in different diseases may be advantageous in medical practice as well as in medical research.

COMPUTER PROGRAMMING

A few remarks about programming and computers. The details of the various programming languages need not be mentioned. It should be pointed out, however, that the development of programming techniques tends more and more

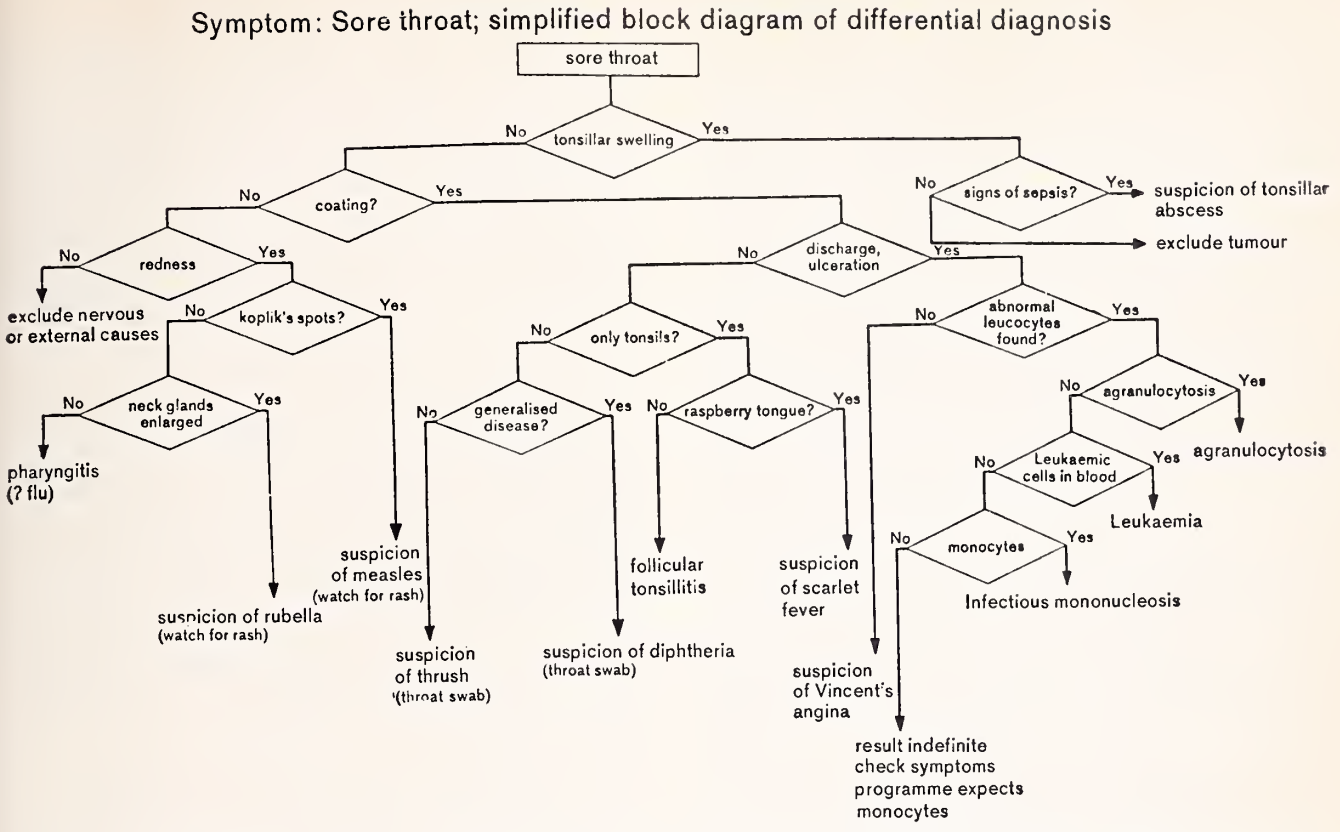


Figure 3. Simplified flow chart for a binary (yes-no) decision model for the differential diagnosis of diseases having the leading symptom "sore throat,"[20] reproduced with permission from the publisher, Documenta Geigy.

to achieve direct interaction between the user and the computer. This will lead eventually to the possibility—an especially desirable one in the field of clinical medicine—that the user can revise the data input, and have the results of those changes immediately displayed to him.[23]

In simulating the diagnostic process, two basic approaches are possible: (1) a binary decision tree, and (2) an algorithmic method.[18] A decision tree starts with a leading symptom, and Figure 3 is a flow chart of a simplified diagnostic process. It shows that depending upon the presence or absence of a symptom, the decision is branched down until a diagnosis is obtained. If the computerization of diagnoses were as simple as Figure 3 indicates, it would not take years for a doctor of medicine to become an experienced diagnostician. One or more particular symptoms may or may not be present in a certain disease. One patient's case may be highly symptomatic, and another's may be asymptomatic or atypical. When symptoms are few or indistinct, a decision-tree approach can easily lead in the wrong direction. We have to remember that the likelihood of the presence of a certain symptom in a certain disease is variable. Therefore different mathematical models have been developed that try to take that variability into account. Prominent mathematicians have said that from their standpoint there cannot be a calculated diagnosis because any statistical evaluation is a judgment concerning an entire population, and not concerning a single individual. That is true, but a clinical diagnosis is also a differential one, and eventually a decision has to be made if a treatment plan is to be determined. This final decision will always have to be made by the clinician, and a computer diagnosis should never be mistaken for that decision.

Various approaches to the problem are possible. Lipkin[9, 10] used a profile of symptoms which might be present in a case, and assigned them differing "weights." Then he added the weights of the symptoms present, and compared the total with the total of symptom weights for each disease that he regarded as a

possibility. Neyman and Collen[2, 3, 14] computed ratios designed to reflect the probabilities that certain symptom combinations would be present in certain diseases. The disadvantage of their approach is that the possible combinations increase exponentially with the number of symptoms noted. For 10 symptoms there would be 2^{10} combinations! Naturally, some combinations can be excluded, but when two or more diseases are taken into consideration, the possible combinations must be multiplied by the number of diseases. Combinations of diseases would further complicate the situation. This may explain the difficulties we face as a result of the great variety of symptoms, symptom combinations, diseases and disease combinations.

The best mathematical model so far—not in theory but in practice—has been the Bayesian theorem which was introduced by Ledley and Lusted[6, 7, 13] and revised by Warner.[29, 30] Bayes, himself, developed his theory 200 years ago.[1] One calculates the probability that a certain symptom combination will be present in a case of each of the diseases to be considered, and divides that product by the sum of the probabilities for all diseases included in the differential diagnosis. The incidences of the different diseases have also to be considered, as well as the significance of the absence of a symptom.

Factor-analysis and cluster-analysis methods have been used. There are models working in a multi-dimensional space where each symptom is a coordinate or vector describing the position of a certain case. Cases of similar diseases form clusters, and a new case can be identified by its proximity to one of the various clusters.

Different techniques have been applied with great success in various fields, especially in sub-specialties such as hematology,[7, 10] congenital heart disease,[5, 26, 28, 29, 30] thyroid disease[4, 15, 31, 32] and gastrointestinal diseases.[33] This listing shows, however, that within each category the choice of diagnoses is small. One might object that if the disease category is known and all the information which the programs require is available, it should be fairly easy to find the diagnosis without a computer. But it may happen that one is dealing with a sub-specialty in which only a few people have had opportunities to make appropriate observations, and in which one's own experience has been slight. With a computer, he could use these programs and utilize the experience of others—or, in essence, could have the benefit of consultations with specialists. Also, the experience accumulated in the programs might be transferred to other research centers. In Germany, for instance, we used the program developed by Fitzgerald, Williams and Overall[4] for the diagnosis of thyroid diseases. Our first test yielded accurate diagnoses in 93 per cent of our cases, even though the laboratory values might have had a different distribution and different normal ranges in our laboratories. This figure increased to 95 per cent when we told the computer how to learn from the symptom combination it had to digest. Then we processed data without laboratory values, entirely on the basis of clinical observation. That series showed 91 per cent correct classifications.[17, 19, 21, 34]

CONTESTS BETWEEN MEN AND COMPUTERS

The authors just referred to performed an interesting comparison. They presented 33 difficult cases of thyroid disease to 16 physicians (including internists, residents and one general practitioner).[32] The same cases were processed by the program. Only one physician, a resident in the nuclear medicine laboratory, did better than the computer. He diagnosed every case correctly, and the computer misdiagnosed one. It is interesting that the general practitioner reached correct diagnoses in only 16 of the 33 cases. His results were not so bad as they might seem, however. The human brain can accumulate only so much knowledge, and if the physician is a specialist, all of his information will concern his special field. If he is a generalist, he has a broader field to cover, and his knowledge will be dispersed over a greater area. Consequently a decision by a non-specialist is unlikely to be as accurate as a decision by a specialist in the specialist's particular area. The latter's diagnostic skill may be no greater than the non-specialist's in an area unrelated to his specialty. Furthermore, it must be taken into consideration that the general practitioner, in his diagnostic evaluation, has to work with things other than iodine values, isotope uptake, etc. But if he has access to a computer, he can use the program

and the computer's memory as a consultant, if he wishes.

Many other examples could be given. In congenital heart disease cases Warner compared his computer's diagnoses with those of physicians with varying types and amounts of experience.[28] Lodwick developed programs for the diagnosis of bone tumors, including a grading of their malignancy.[11, 12]

ADVANCES ACHIEVED AT THE UNIVERSITY OF MISSOURI

The electrocardiogram has been subjected to automated procedures. Pipberger and Caceres and their associates have been engaged in this task. The Missouri Regional Medical Program now applies Dr. Caceres' program on a statewide basis, though the recording stations are still limited in number.[8]

In recent years great emphasis has been placed on an attempt to interface the computer with the physician in such a way that the physician has no need to know how to program but still can introduce his logic, his reasoning and his decisions into a program. This interfacing can be done by various means. Over the past few years we have worked with cathode-ray tubes (CRT's). Questions, answers and information are displayed on a television screen, and the physician can communicate with the machine by typing-in code letters by means of a typewriter-like console, or by moving a light mark.

This physician-computer interfacing is a new technique that eventually will enable the practicing physician to secure information at the very moment he needs it. The information may be general—e.g., the symptomatology of particular diseases—or it may be information pertaining to a particular patient.

In the Department of Radiology at the University of Missouri Medical School, a system has been developed that can be used to generate, organize, store and transmit radiologic consultations. It can provide diagnostic aid in four different disease categories—bone tumors,[11, 12, 15] gastric ulcers,[33] solitary lung nodules, congenital heart diseases[26] and thyroid diseases.[4]

The reporting part of the On-line Diagnostic and Reporting System (ODARS) is based on the "RADIATE" concept.[25, 27] We have analyzed, modified and divided the procedure of film reporting into different tasks, using open-ended vocabularies for descriptions of the examination type, the anatomic site and the diagnoses. These vocabularies can be updated from the terminal. Table 1 is an example of a report generated with the aid of this system. Whenever the radiologist wishes, he can branch into the diagnostic part of the system and, answering a checklist of questions, obtain a computer diagnosis for the particular case in which he is interested (Table 2). After completion, the report is transmitted directly to the wards. This research, too, is supported by the Missouri

TABLE 1

FRIDAY, JANUARY 07, 1969—TIME : 11.55.30

RADIOLOGY REPORT
FOLLOW UP REPORT

NAME : DOE, JOHN BORN : 06/09/49 SEX : MALE
WARD (OR SERVICE) : 06 RACE : CAUCASIAN
PATIENT UNIT HISTORY NUMBER : 000000
TYPE OF EXAMINATION : ORAL CHOLECYSTOGRAM, D DOUBLE DOSE
ANATOMIC SITE : GALLBLADDER
DIAGNOSIS : NON-VISUALIZATION
CONFIDENCE LEVEL 7
NO SIGNIFICANT CHANGE IN FINDINGS SINCE LAST EXAMINATION

P. L. REICHERTZ

Report generated by the "RADIATE" part of ODARS system as a result of a physician-computer dialogue. When the physician has typed the patient's identification number, the patient's identification is retrieved from the computer files. After the radiologist has specified a diagnosis, the computer demands a confidence level (1-9) to indicate the certainty with which the radiologist has made his diagnosis.

TABLE 2

SOLITARY LUNG NODULES	
CARCINOMA	0.496
GRANULOMA (HAMARTOMA)	0.316
INFARCT. AND CHRONIC PNEU	0.187
SMOKER	NO
ZONE OF LESION	HILAR
SIZE OF LESION	3 THRU 5.9
SHAPE OF LESION	SYMMETRIC
CHARACTER OF BORDER	SHARP
CALCIFICATION	ABSENT
CAVITATION	ABSENT
PLEURAL FLUID	ABSENT
HILAR ADENOPATHY	ABSENT

ODARS diagnostic routines. Upper part: diagnoses with probabilities in the disease category: solitary lung nodules as displayed on the cathode-ray tubes, when the symptoms shown in the lower part have been specified. After the first diagnostic evaluation the radiologist may change his answers to the queries about individual symptoms (here indicated for the symptom: calcification), and may ask for a re-evaluation.

Regional Medical Program, and we intend to make our service available to other hospitals.[22]

In Austria, Schmid[24] has tried to develop a diagnostic system that will be accessible by teletype from all over Europe. He has combined the results of the work of other teams with his own investigations, and has tried to build a semi-commercialized system. Some subcenters have bought either the program or the machines from Dr. Schmid, and have started providing diagnostic services at a cost of about $50 per patient. The patient is presented with about 800 questions, and the resulting data are processed. The computer then issues a recommendation as to what should be done.

This has led to great controversy. At the moment there can be no doubt that there is no comprehensive diagnostic system for computer diagnosis. As the number of possible diagnoses grows, the inaccuracy of the applied models increases, and the difficulties grow immensely as soon as combinations of diseases come into play. But the possibilities of taking patient histories in a very comprehensive form, obtaining diagnostic aid in particular cases, and having all possible information instantaneously available constitute some of the future applications of computers in medicine.

CONCLUSION

It has often been said that computers are likely to make medicine too materialistic and impersonal, though they may improve the diagnostic process. I am unwilling to accept that contention. The value of computer diagnosis depends upon the quality of exploration, examination and observation that has been done, upon the logical concepts of the program, upon the specificity of the questionnaires, and finally and very importantly upon the interpretation of the results. I admit that a little of the mystique of medicine will be replaced by realism, but that will be a small price to pay for improvements in the methods and scope of medical practice.

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Reading Difficulties of Children

Parents whose children show signs of reading difficulties should not ignore such warnings, but the time for active intervention varies from child to child, participants heard at a recent conference at the University of Iowa. Three experts, Drs. Arthur Benton, professor of neurology and psychology at the U. of I.; Arthur Keeney, physician and chief of the Wills Eye Hospital, Philadelphia; and Jerrod Normanly, instructor in pediatrics at the U. of I., spoke at the recent annual meeting of the Iowa Eye Association, sponsored by the U. of I. Department of Ophthalmology.

Dr. Benton pointed out that dyslexia, or the inability to read, was not recognized as a disorder until late in the 19th Century when literacy became nearly universal. Specific developmental dyslexia is not the same as reading retardation, he said, but is the failure to learn to read by an otherwise intelligent child with normal hearing and vision. Diagnosis of developmental dyslexia is essentially negative because it is made only after all attempts to identify known factors which cause reading retardation have failed, Dr. Benton said.

Reading problems of any sort are serious, he said, because children who have them suffer general decreases in the acquisition of verbal skills after age seven. Although emotional problems contribute to reading difficulties, their exact role is not known, he continued. Irregular, slow progress is characteristic of children with dyslexia. "They seem to make sudden jumps to higher levels of reading ability, and some persons seem to outgrow the problem entirely and enter occupations that require high levels of verbal skill such as law and language arts." Dr. Benton urged intensive treatment for dyslexic children, since standard remedial reading techniques do not seem to help.

Dr. Normanly said that about 10 to 30 per cent of dyslexic children are first seen by ophthalmologists because early attempts to diagnose the problem usually include eye examinations. Other physicians may see them because of behavior or bed-wetting problems, and in some cases the behavior problem may be so severe that it obscures the basic problem, inability to read, he explained.

It is very important to find out the family history in cases of developmental dyslexia because the disorder seems to have a genetic source, Dr. Normanly pointed out. "Children with the disorder should be referred to an interested physician who can guide the parents to a suitable rehabilitation program."

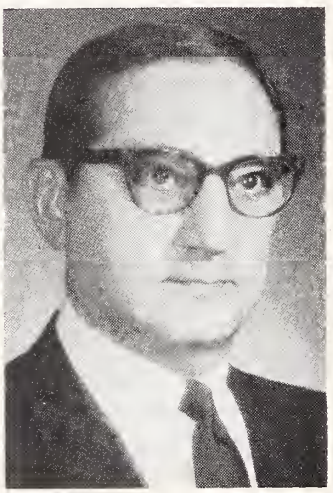
Dr. Keeney also stressed this course of action. "Counseling and routing the patients into proper treatment channels is of utmost importance. Parents of dyslexic children are prime targets for charlatans because present medical knowledge can help the children only to a certain point, beyond which the quacks step in," he said. He described the disorder as "symbol confusion," and illustrated the tendency of its victims to transpose letters in words, especially "mirror-image" words such as rat and tar.

About 20 per cent of school-age children have some form of reading difficulty, and most children experience some temporary form of difficulty in the first or second grade, he said. About 10 per cent of school-age children have a severe reading retardation problem and up to 2 to 3 per cent have specific developmental dyslexia.

Chances for improvement and normal outcome are increased by early recognition and treatment of developmental dyslexia, he said. He recommended pre-school screening examinations to detect vision problems before they cause reading difficulties.

President's Page

Peer Review



The much-heralded listing of 1968 Medicaid payments to Iowa medical doctors arrived at Society headquarters July 8. Its sender, the State Department of Social Services, has been adamant in its opinion that the concerned professional organizations should evaluate these data prior to any public dissemination. (See "In the Public Interest"—the "green sheet" in this issue of the JOURNAL.)

In acknowledging receipt of the list, the IMS (1) stressed that the presence of a name on the list in no way constitutes abuse; (2) emphasized that several factors (type of practice, location, etc.) influence the level of payments; (3) explained that 40 to 45 per cent of any gross listed is attributable to overhead, and (4) noted the broad difference in types of providers listed (individual, small group, large group, Mayo Clinic, University Hospitals).

The Society has advised the SDSS of its intention to evaluate initially total payments exceeding $15,000. Fourteen physicians (believed to have billed individually) surpass this level. As this is prepared, these physicians are being invited to join with the respective IMS district review committees in evaluating their participation in the Medicaid program.

We have said we are anxious to keep the profession's house in order. These evaluations will demonstrate our ability to do so.

Wm M. Knigsten MD

President



Editorials

VACATIONS CAN BE DISASTROUS

This is the summer vacation season, when families flock to the lakes and streams to escape the heat of the cities and towns, and to relax in a less hurried way of life. Each year, summer after summer, serious accidents occur as cars loaded with adults and children speed to their destinations, and numerous drownings sadden the lives of other people.

In 1968 there were 74 drownings of Iowa residents in lakes and streams within the state. This year a considerable number of drownings already have been reported. Three Iowans drowned in a Canadian lake while on a fishing expedition. Others have lost their lives as a result of falling from a boat, and one man was drowned recently when he tried to climb from one boat into another. In addition, there are frequent reports of deaths from swimming in unsupervised or otherwise particularly dangerous streams, ponds, quarries and gravel pits, or from wading in the water bordering a sand bar.

Passengers and drivers of automobiles are repeatedly warned to fasten their seat belts, and emphasis has been given to the number of lives that have been saved by those devices. Head-rests to prevent whiplash injuries are now required equipment in the new automobiles. It would appear that greater stress should be placed upon similar preventive devices designed to prevent accidental drownings.

Iowa law requires that a life-saving jacket or life-preserver be provided for each occupant of a boat. In most instances this consists of a life-preserver cushion which will support an adult in the water. There is no requirement that children or adults who are unable to swim must wear life-jackets in boats, but surely such a measure would save many lives. The precaution of insisting that children playing along the shore or on docks, or wading in a stream or pond must wear life jackets would avert many drownings. The newer models of life-jackets are less cumbersome and more comfortable than the older models that most people were reluctant to wear.

The physicians of the state can make a real contribution to traffic and water safety by precept and example. The life that is saved may belong to a much-loved member of your own family!

REPAIR OF INGUINAL HERNIA IN INFANTS AND CHILDREN

Whether bilateral operations for clinically unilateral inguinal hernia in infants and children should be routine is a controversial subject. A recent article by a group from the Mayo Clinic reports the experience there over a seven-year period during which bilateral operations were done not only on patients with clinically apparent or questionable bilateral hernias but also on those with clinically unilateral hernias.*

* Simpson, T. E., Gunnlaugsson, G. H., Dawson, B., and Lynn, H. B.: Further experience with bilateral operations for inguinal hernia in infants and children. ANN. SURGERY, **169**:450-454, (Mar.) 1969.

During 1961-1967, inclusive, 536 patients under 15 years of age were operated upon for inguinal hernia. That group did not include 139 patients in whom repair of hernia was done during orchiopexy. Of the 536 patients, 170 had the clinical diagnosis of bilateral hernia; 66 had hernias diagnosed as questionably bilateral; and 300 had the clinical diagnosis of unilateral hernia. Of the unilateral hernias, 187 were on the right and 113 on the left. The belief that inguinal hernia is much commoner in males than in females was supported by the fact that the group consisted of 472 boys and only 64 girls. Over half of the patients operated upon were under two years of age.

According to the Mayo surgeons, unless there were contraindications, hernias were repaired when diagnosed. The surgery was performed promptly because of the recognized high incidence of incarceration, especially in patients under one year of age.

Early in this series anesthesia was induced by cyclopropane. Later, inductions in the younger patients was by nitrous oxide, oxygen and halothane, and in the older children by thiopental administered intravenously. Children under 20 lbs. were intubated, and in operations upon those weighing more than that amount, a face mask and airway were used. Anesthesia was maintained in all cases with nitrous oxide, oxygen and halothane. Bilateral operations were planned and performed in 353 patients, and the anesthetic course was smooth and uneventful. In one patient with a congenital heart lesion there was an unfavorable response to anesthesia that necessitated limiting the operation to one side only. The mean anesthesia time for bilateral procedures was 66 minutes, and for unilateral repair it was 49 minutes. The additional time required for bilateral repair resulted in no increase in morbidity, and there were no deaths in either group. Patients were ordinarily discharged from the hospital on the day after the operation.

At operation a transverse skin-crease incision was made, and a modified Ferguson technic was employed. The incision was closed by subcuticular sutures of 6-0 white Mersilene. No dressing was applied to the operative wound.

In the group of 300 patients with clinically unilateral hernia, repair was restricted to the one side in 82 instances, for various reasons. Of the 218 patients with clinically unilateral hernia in whom bilateral operations were performed, 59 per cent actually had bilateral hernia sacs—58 per cent of those under two years of age and 59 per cent of those over the age of two years. And if the presence of a sac or of a patent processus vaginalis is considered a positive finding, then positive exploration on the contralateral side varied from 84 to 90 per cent. A hydrocele was present in 19 per cent of 992 hernias in the 536 patients.

Among the complications observed in this group of patients, a postoperative temperature of 100°F. or more was recorded in 34 per cent. There was one instance of staphylococcic wound infection—an incidence of 0.1 per cent. One patient who underwent an emergency operation for incarceration had postoperative atelectasis. Two hydroceles recurred, but there was but one recurrence of a hernia.

From this experience the incidence of contralateral hernia in patients up to 15 years of age who had one symptomatic inguinal hernia was 59 per cent. If one believes that a patent processus vaginalis represents either hernia or potential hernia, then the rate of positive exploration on the contralateral side in patients with just one hernia clinically was 87 per cent. Inasmuch as there was no increase in recurrences, infection or mortality with simultaneous operations, the authors conclude that this procedure not only is justified but is indicated in patients of this age group.

In his classical SURGERY OF INFANCY AND CHILDHOOD, Robert E. Gross bases his discussion of inguinal hernia on an experience gained from the surgical treatment of more than 8,000 cases at the Children's Hospital of Boston. Apropos the routine exploration of the contralateral side, Dr. Gross states: "In an occasional patient the repair of a hernia (particularly if it has been done on the left side) is followed by the subsequent appearance of a hernia on the opposite side, requiring a second operation. Experiences of this sort led us for a time to explore both sides in all subjects. In some of these patients a hernia was found on the second side; more frequently it was not. Therefore, at the present time we open the sec-

ond side only when there is something in the history or physical examination which suggests that a hernia may be present on the second side."

In his TEXTBOOK OF PEDIATRIC SURGERY, SECOND EDITION, Dr. Orvor Swenson states: "It appears patients with initial left inguinal hernia have approximately a 50 per cent chance of developing one on the right side. On the other hand, those patients with a right inguinal hernia have only a slight chance of developing one subsequently on the opposite side. Palpation of a thickened cord on the opposite side from the obvious hernia has been our indication for decisions to perform bilateral repairs."

According to Dr. Gross, the right testis descends at a somewhat later date than does the left, and accordingly the right processus vaginalis is closed off at a later time than is the one on the left. This delay in closure on the right probably accounts for the greater frequency of indirect inguinal hernia on the right side.

Both Dr. Gross and Dr. Swenson recommend a special method of examination for the detection of inguinal hernia in infants and children. Either the index or the middle finger is placed *over* the length of the inguinal canal, with the tip of the finger kept over the pubic spine. The finger is rubbed gently from side to side across the cord structures, and if a hernial sac is present, a thickening of the cord can be detected. In addition, a sliding sensation is experienced, as if silken surfaces were sliding over one another. This is due to the slipping of the cord structures on the walls of the hernial sac. Both authors state that this method of examination is a definite aid in diagnosing inguinal hernia in this age group.

Obviously the routine operation on both sides in infants or children with clinically unilateral inguinal hernia is not universally accepted. It would appear that careful examination of the contralateral side should help one to determine more accurately whether an exploration is justified. There also seems to be some question whether the mere patency of the processus vaginalis constitutes a hernia.

ADMINISTRATION OF INTRAVENOUS FLUIDS

The intravenous infusion of fluids is such a common practice in our hospitals that there is a tendency for us to lose sight of the fact that it is not an entirely innocuous procedure. There have been numerous reports in the literature calling attention to the complication of thrombophlebitis accompanying venoclysis. A recent article by Swanson and Aldrete from the V. A. Hospital, Denver, reports an incidence of 28 per cent in a group of 123 patients, and the various factors contributing to this complication are considered.*

The usual manifestations of thrombophlebitis are erythema, painful induration proximal to the site of needle puncture, and limitation of motion of the involved extremity. There have been reports of pulmonary embolus and of septicemia as a consequence of phlebitis following this minor procedure, but fortunately these are infrequent sequelae.

The study group consisted of 123 male patients admitted to the Denver V. A. Hospital. Venoclysis was started by members of the Department of Anesthesia, and the intravenous fluid consisted of 5 per cent dextrose in lactated Ringer's solution administered through needles or indwelling catheters selected according to the requirements of the anesthetic technic, the clinical condition of the patient and the type of surgery contemplated. The customary aseptic technic of skin preparation was carried out prior to skin puncture. The skin was cleansed with 70 per cent alcohol in 40 patients; with pHisoHex in 37 patients; and with a 1:1,000 solution of Zephiran chloride in 46 of the group. In the latter two groups the area of skin puncture was scrubbed for 20 seconds.

The type and gauge of disposable needles and catheters employed were 15G, 16G and 18G plastic catheters, and 19G metal disposable needles.

After the venoclysis was started all patients

* Swanson, J. D., and Aldrete, J. A.: Thrombophlebitis after intravenous infusion. ROCKY MOUNTAIN MED. J., 66:4, 48-51, (Apr.) 1969.

were anesthetized by regional or general anesthesia, and underwent surgical procedures. Following surgery, the patients were visited daily, and the site of injection was inspected for at least 72 hours after the needle or catheter had been removed.

In the group of 123 patients, 34 developed thrombophlebitis (28 per cent). The results in this series suggested that the material used in preparing the skin before venipuncture had no influence on the incidence of phlebitis. The two detergents were no more effective than alcohol, and Zephiran was somewhat less effective.

The incidence of phlebitis was significantly higher when the larger catheters were employed than when the smaller 19G needles were used. Others have reported that the size of the catheter or needle was a contributing factor in cases of phlebitis, and the difficulty has been attributed to injury to the vein wall. Fewer cases of septicemia have been observed when stainless-steel needles were used, as compared with polyethylene catheters.

The time during which the catheter remained in the vein proved to be a definite factor in causing phlebitis. Of 19 patients in whom a catheter was left longer than 24 hours, 13 (68 per cent) developed phlebitis. In contrast, of 104 patients in whom the catheter was left in place less than 24 hours, only 21 (20 per cent) developed phlebitis. This perhaps can be partially explained by the fact that larger catheters were usually used for infusions of longer durations, but the incidence of thrombophlebitis was greater than could be attributed to catheter-size alone. In the judgment of the authors, trauma from the continuous presence of the catheter and the continuous infusion of irritant chemicals were probably the factors which explain the role of the catheters in the etiology of phlebitis. Several other reports have suggested the same potential causes for phlebitis, and have recommended that indwelling catheters be left in place no longer than 24 hours.

From their observations and from the fact that little change in the incidence of phlebitis resulted from a more elaborate than usual preparation of the skin, the authors suggest that the entrance of pathogenic organisms into the blood stream is facilitated by the continuous skin-venous lumen pathway around the indwelling catheter. This appears to be a more plausible explanation than the sudden introduction of organisms at the time of venous puncture. The fact that phlebitis developed in only 7 per cent of the patients in whom the infusion was administered through stainless-steel needles appears to support this thesis.

Age did not appear to be a factor in the development of phlebitis in this series of patients, and other authors have been unable to demonstrate any consistent association between age and phlebitis caused by intravenous infusion.

The site of venoclysis appeared to be a factor in the incidence of thrombophlebitis. It occurred much more frequently when the veins of the dorsum of the hand or wrist, or of the forearm, were used, than when the veins of the antecubital fossa were the site of the infusion. Phlebitis did not occur in any patients in whom catheters were inserted into the jugular veins. It would appear that the more rapid the flow, the lower was the incidence of phlebitis.

It is postulated that the chemical irritation of the infused fluid may be a factor in causing phlebitis. Others have observed a reduction in the incidence of the complication if solutions are buffered to pH 7.4. Since a more rapid flow dilutes chemical irritants quickly, using the larger veins appears to reduce the susceptibility to the development of phlebitis. The authors emphasize that a predisposition to phlebitis can be anticipated when an inflamed vein, irritated by the presence of a foreign body, receives a medication having an extreme pH.

They conclude that there is no one specific cause for thrombophlebitis resulting from intravenous infusions. Attempts to reduce the incidence call for smaller catheters, insertion with minimal trauma, short duration of the infusion, and judicious selection of the site for the insertion of indwelling catheters.

THE JOURNAL *Book Shelf*



BOOK REVIEWS

CANCER—A MANUAL FOR PRACTITIONERS, FOURTH EDITION, published by the Massachusetts Division of the American Cancer Society (138 Newberry Street, Boston 02116, 1968. ($3 hard-cover or $2 paperback, plus postage and handling charges).

This 407-page collection of cancer-treating chapters is presented in its fourth edition since first published in 1940. Twenty-nine different authors present their views and the experience from their respective institutions on as many different types of cancer. Etiology, pathology, symptoms and aids to diagnosis are also briefly re-capped in each of these chapters. The Massachusetts Medical Society and The American Cancer Society, Inc. oversaw the production of this book, and it soon became apparent that it filled the need of physicians in Massachusetts both in their training stages and in their practice. It then became nationally accepted. It is current in such areas as the latest chemotherapeutic agents, radioisotopes, epidemiology, and advice for researchers-and-grant seekers. It is a source of information for pathologists and radiologists as well as for practitioners. There are descriptions of paraneoplastic syndromes such as the auto-immune effect and the endocrine effect imparted by some tumors.—*T. D. Ghrist*, M.D.

MORRIS FISHBEIN, M.D., AN AUTOBIOGRAPHY (Garden City, New York, Doubleday & Company, Inc., 1969. $10.00).

In reviewing this autobiography, the writer finds the greatest difficulty in developing a topic sentence and an introductory paragraph which can do justice to either the man or the book which he has written. Dr. Fishbein is a man of so many and varied talents that it is difficult properly to emphasize any one of them, and to keep the others in proper prospective. Perhaps in succeeding paragraphs this cryptic generalization can be elucidated.

Dr. Fishbein was born into what must have been an unusual household. He, himself, admits that he was genetically blessed in that he enjoyed reading, and that he developed the habit of reading at a rate of 2,000 words per minute—an invaluable asset for both work and relaxation. Apparently his entire family enjoyed books and conversation, and love and respect were parts of the picture. He describes his unusual youth in Indiana nostalgically.

He became interested in medicine by a most fortuitous circumstance, and when scarcely 20 he left his home to go to Chicago and enter Rush Medical School. He had already trained himself in secretarial skills, and almost the same day that he registered as a freshman in medical school he became secretary to the great pathologist Hektoen. In that office the various members of the Rush faculty were frequent visitors, and young Fishbein came to know most of them. His lifelong ability to expand acquaintanceships into friendships was already in the process of development, and he soon became known to the members of the Rush faculty in a personal way as well as in the classroom. Later on, he assisted in the county coroner's office, and it was his duty to go to the Cook County Morgue at 5 o'clock each morning and describe the gross appearance of the subjects there, so that the pathologist LeCount could proceed with the autopsies without delay. The result of this particular effort was that as a student Fishbein participated in hundreds of postmortems, and he actually produced 20 volumes of records which are still in existence.

As a medical student, the then Mr. Fishbein was precocious. Many of the activities which he has enjoyed throughout his entire life started when he was still a medical student. He was a participating sportsman, and he actually was a competitor in a Big Ten Conference trackmeet. During his life he has been known as an avid card player—particularly in those games which he euphemistically calls "mathematics" and as a student he played—and sometimes promoted—card games for either money or services. Also throughout his life he has been interested in the theater and the arts. As a student he was a "super" in various productions on the Chicago stage, and once actually helped carry Sarah Bernhardt onto the stage. He became interested in medical history, and while still a student served as secretary at the founding of The Society of Medical History of Chicago.

By his junior year he had had editorials published in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION and he had written articles published in the AMERICAN JOURNAL OF MEDICAL SCIENCES and in JAMA. It is not too difficult to understand, then, that of the three positions offered him when he graduated from medical school in 1912, he chose the one which, although it offered the least financial rewards, promised him most satisfaction. He became the assistant to Dr. George Simmons, secretary and general manager of the American Medical Association and editor of JAMA. Dr. Fishbein then began to gain momentum.

He did not become the editor of JAMA until 1923, but long before then he was extremely active as the assistant editor. He wrote editorials, read manuscripts, checked advertising, and perhaps even then organized special departments of the JOURNAL. As managing editor, he helped develop all but two of the specialty journals which the AMA now prints. By 1915 he had assisted in the revision of the third edition of the HANDBOOK OF THERAPY, which sold 80,000 copies and bears his name on the title page.

It is not just by coincidence that JAMA became the "world's greatest medical journal." Dr. Fishbein read and edited all contributions during the years that he

was editor, from 1925 until 1950. He supervised departments, he developed new departments and he developed their editors. He wrote thousands of editorials, and it was he who interpreted and explained various actions of the House of Delegates to the members of the Association. He says that the most widely read section of JAMA was "Tonics and Sedatives," the humorous column which included his own "Doctor Pepys' Diary." The latter was a day-to-day account of his many travels and activities, including his speeches, his reading, and more particularly the names of people whom he met over the entire country, or even outside of it. One has always had the impression that "Dr. Pepys' Diary" was no more than a synopsis of Dr. Fishbein's private diary, which he must have kept faithfully since his medical school days.

The JOURNAL, successful and extensive as it was, was only a part of Dr. Fishbein's productive writings. He published three books in 1925, one in 1927, two in 1929, two in 1930. In all he has authored 22 books, and has edited 21 volumes. He developed records and manuals, innumerable pamphlets, committee reports and so on. During the time he was at the AMA headquarters, and when he was assistant editor and then editor of the JOURNAL, the advertising and publishing departments grew from 88 employees, in 1913, to more than 900, in 1950, divided about half and half between office personnel and the printing department.

Much of the editing of the JOURNAL, he did "on the road." He rapidly expanded his activities in the field of public relations, almost from the time he started to work at AMA headquarters. He was a commuter between Chicago, Washington and New York, and met with and was friendly with cabinet members, congressmen and military men. Meetings with his publishers took him to New York, and he came to be in great demand as a public speaker. It would seem that he appeared several times a week at conventions or club meetings in various states of the Union.

By the 1930's he was attacking quackery wherever it could be found and he soon attracted national publicity by that route. He and the AMA—particularly the JOURNAL—were sued for millions of dollars by various quacks, but it would seem that of all the various suits, all of the damages totaled one cent.

By the nature of his many activities he became the spokesman for American Medicine and the AMA, and politicians in and out of the AMA kept up a running attack against him personally. Finally in 1949, after having won many battles, Dr. Fishbein lost the war and left the AMA.

Reference has been made to some of his activities during his years in Chicago but none has been made particularly to his friendships outside of the medical profession. He early associated himself with the newspaper and writing colony in Chicago, and with what was later to be known as the Chicago school of writers. They included men such as Carl Sandburg, Ben Hecht, Charles MacArthur, and others. Visitors such as Sinclair Lewis, Paul DeKruif, H. L. Mencken, and radio and later television and movie writers all seemed to gravitate sooner or later to Dr. Fishbein's circle. He knew or was acquainted with many of the actors, the night club entertainers and sports personalities. He knew all the best restaurants, and perhaps their chefs. He was friendly with the advertising-agency directors and the public-relations men of the great drug companies, and there seemed to be scarcely any type of person with whom he did not have contact or come to know intimately.

Although officially Dr. Fishbein left the AMA in 1950, his medical activities were not the least bit diminished. Since then he has been concerned with philanthropy, medical editorship, development of medical journals, speeches of all sorts before all types of groups, and the development of friendships over the entire world. Currently he is the editor of MEDICAL WORLD NEWS and of POSTGRADUATE MEDICINE. He has spoken at hundreds of meetings to raise funds for hospital construction. He is interested in the activities of the great foundations. He has a personal interest in the development of research in heart disease and poliomyelitis. He can fill but a small percentage of the requests for talks on the lecture circuit. Parenthetically one should mention the celebration of his 80th birthday, this June in Chicago—still in the future as this is written. The guest list is to include Nobel Prize winners, scientists, authors, philanthropists, and probably some representatives of the American Medical Association.

The index of the Fishbein autobiography is remarkable. It consists of 19 double-column pages of people whose names are mentioned in the book. All sorts of individuals are included. Of course there are many doctors from both within and without the AMA hierarchy, but probably there are more who are scientists and practicing physicians and prominent people of other sorts. In the index not a single reference is made to the AMA or to JAMA or any other publication. None of the many committees of which Dr. Fishbein was a member are mentioned.

Since this review is largely for doctors, it should be emphasized that the story of the American Medical Association, as told by Dr. Fishbein, should be of special interest. Older doctors, in fact, will note hundreds of references to former officers, actions of the House of Delegates, development of policies, and so on. Younger physicians can come to understand the background of many of the present policies and attitudes of the Association. The story of the political infighting which has gone on, and which continues, should interest all doctors. Throughout, the book shows how the Association develops its policies through its Board of Trustees, councils and committees.

Reference has been made to Dr. Fishbein's parents and how they helped to mold his future. Dr. Fishbein was married in 1914. His wife has been a perfect companion, and her talents have supplemented his for 55 years. Mrs. Fishbein, along with perhaps as many as three more generations of Fishbeins, is to be present and to be honored at his 80th birthday celebration.

This reviewer is convinced that all doctors will enjoy reading this book for its information, wit, and style. It may well be that this AUTOBIOGRAPHY and Cushing's LIFE OF OSLER will be the outstanding nonfiction medical volumes of the 20th Century.

Just as Dr. Fishbein's audiences have enjoyed his spoken words, the reader will be entertained and amused by this book. Incidentally it will explain the life of a most remarkable man who happens to be a doctor. It is highly and totally recommended for all readers.—*R. N. L.*

COLLATERAL CIRCULATION IN CLINICAL SURGERY, ed. by *D. E. Strandness, Jr.*, M.D. (Philadelphia, W. B. Saunders Company, 1969. $20.00).

There is a subspecies of Homo sapiens known as girl-watchers. Although less well known, there is also a subspecies that could be called schedule-watchers. A schedule-watcher, usually a surgeon, is one who rather surreptitiously studies the daily surgical schedule in a hospital to see not only who is operating, but what procedure the bastard is doing.

Any schedule-watcher can readily testify that more and more vascular surgery is now being done, and by more and more surgeons. Vascular surgery—only yesterday the frontier of surgery—seems to be the "in thing" today. COLLATERAL CIRCULATION IN CLINICAL SURGERY is a book that touches strongly on the subject of vascular surgery, for it "considers in detail those diseases in which a consideration of collateral circulation is important." It also contains detailed descriptions of circulatory anatomy as well as of anatomical variations and congenital anomalies. Several chapters each are devoted to such subjects as arteriovenous fistula, the thoracic aorta, collateral circulation of the upper and lower extremities, and the arterial collateral circulation of the nervous system. The technical aspects of surgical procedures relating to these subjects are *not* covered, however.

Because the book contains such great detail about a rather narrow subject, it is recommended only for those with a particular bent for circulatory problems. Besides, practical knowledge in the field of circulation that is important to the family physician, internist, or general surgeon can be more easily extracted from simpler and briefer sources.—*Daniel F. Crowley,* M.D.

MEDICAL SUPPLY IN WORLD WAR II, Office of the Surgeon General, Department of the Army, Washington, D. C., 1968. $8.25.

This book of 650 some pages is one that you cannot read in bed. Although it is sufficiently interesting to keep you engrossed, it is too heavy to support on your chest or to manipulate while you are lying down. It is a book that you must sit at a table with a good light to be able to read. It would be of interest to every medical officer of World War II, and should be a part of the armamentarium of every present-day medical supply officer in each service.

The job of supplying 8 million people scattered all over the world was indeed colossal. To explain just how great it was, it is best to quote from the Foreword: "It included transportation from mine or farm or forest to processing plants, from plants to depots, and from depots to the far corners of the earth, wherever American troops were stationed. It included the classification and selection of items and packaging of these into an incalculable number of hospital assemblies, dispensaries, medical and dental chests, kits, and packets designed for individual use. It entailed the continuous flow in enormous quantities of more than 7,000 standard medical items and many, many more that were not standard: billions of Atabrine tablets, millions of surgical needles, thousands of X-ray machines. It included huge storerooms piled high with hospital beds, vaults filled with narcotics, refrigerators by the tens of thousands filled with antibiotics and vaccines, and planes carrying penicillin and whole blood packed in dry ice. The individual items ranged from the simple, inexpensive wooden tongue depressor to the costly and delicate electroencephalograph. In overall terms, more than a billion pounds of medical supplies were purchased between 1 July, 1941, and 30 June, 1945, at a total cost of a billion dollars. Packed in freight cars, the items purchased over this 5-year span would fill a train 400 miles long."

Each reader of this fine book will undoubtedly pay special attention to the area to which he was assigned during World War II. Forgotten names of officers will flash back to him. Forgotten names of towns, individual items of Medical Supply and their forgotten numbers appear, and even depot names will refresh memories.

To an intern finishing on June 30, 1969, and just entering the Armed Services, this book would very likely be quite dry reading, since it covers past history and many items of supply that are now obsolete, but perhaps it should be required reading for each medical supply officer.—*C. Harlan Johnston,* M.D.

THE EVOLUTION OF PREVENTIVE MEDICINE IN THE UNITED STATES ARMY, 1608-1939, by *Stanhope Bayne-Jones,* M.D. (Washington, D. C., Office of the Surgeon General, Department of the Army, 1968. $2.50).

Necessarily, medicine in Colonial America was practiced by men who had received their training predominantly in England. Inoculation against smallpox became known in England in about 1700. Cotton Mather, in Boston, advocated its use, and also the use of orange and lemon juice for scurvy. By the time of the American Revolution, inoculation was practiced on general preventive grounds.

Two early Medical Schools were in existence. The Medical School of the College of Philadelphia was founded by Dr. John Morgan in 1765. It later became the Medical School of the University of Pennsylvania. The second was the Medical School at King's College (later Columbia), established in 1768 in New York City.

When General George Washington took command of the Continental Army, one of his first acts was to urge the immediate establishment of the military medical department or "hospital" as it was known in that time. Many notable names emerge in the history; Sir John Pringle, Dr. John Billings, Dr. John Jones, Dr. Benjamin Rush, Baron Von Steuben, and Dr. James Tilton.

Surgeon General William Alexander Hammond made great advances during the Civil War. The name of Jonathan Letterman emerged at that time. Great strides were made in hygiene and sanitation. By the start of the Twentieth Century, the causes of many diseases had been discovered, and prevention became common. By the close of the period covered by this book, the introduction of antibiotics and chemotherapy had occurred.

I found this small book intensely interesting and very well written. Frankly, I expected it to be quite dry and uninteresting, but I was agreeably surprised. It is a book I can pick up at any time and start reading at any place and find it of great interest.—*C. Harlan Johnston,* M.D.

University Hospitals DRUG LETTER

RhoGAM Protection After Rh-Incompatible Pregnancies

C. A. WHITE, M.D.

ISOIMMUNIZATION of Rh-negative women by an Rh-incompatible pregnancy is the commonest cause of erythroblastosis in *severely* affected infants, and it is caused by fetal erythrocytes' entering the maternal circulation. The active Rh_0 (D) antibody produced by the mother is the cause of Rh hemolytic disease of the fetus in subsequent pregnancies. Transplacental hemorrhages which might occur during pregnancy rarely result in isoimmunization either because the immune reaction is depressed during pregnancy or because the hemorrhage is too small to evoke a response. However fetal blood may enter the maternal circulation at the time of delivery in sufficient amounts to cause sensitization.

Applying the principle of antibody-medicated immune suppression, complete protection from primary immunization was obtained when an adequate amount of anti-Rh_0 (D) immune globulin was given to Rh_0 (D)-negative male volunteers within 72 hours after receiving 10 ml. of ABO-compatible, Rh-positive erythrocytes.[1] Encouraged by this success, clinical studies in women were initiated in March, 1964, and were ultimately extended to include 42 centers in the United States and other countries.[2] Over 3,000 women have been admitted to clinical studies (including 99 patients at the University of Iowa), and these tests demonstrated the efficacy of RhoGAM and culminated in its release for commercial distribution in May, 1968.

RhoGAM (Ortho Diagnostics) is a highly concentrated preparation of immune globulin G (IgG) containing anti-Rh_0 (D) antibody. It must be administered to the Rh_0 (D)-negative, D^u-negative postpartum patient within 72 hours following the birth of an Rh_0 (D)-positive or D^u-positive baby. The mother must not be immunized to the Rh_0(D) factor (negative indirect Coombs), and the baby should have a negative direct Coombs test. Since ABO incompatibility between the Rh_0 (D)-negative mother and her Rh_0 (D)-positive fetus offers only incomplete protection against Rh isoimmunization,[3] the use of immune prophylaxis is also advisable in these cases. In addition, it has been suggested that a miscarriage can cause primary immunization through the entry of even a small amount of Rh_0 (D) positive fetal cells into the Rh_0 (D)-negative mother's blood stream. Therefore, if a miscarriage occurs in an Rh_0 (D)-negative woman with an Rh_0 (D)-positive husband, she should be considered for protective therapy with RhoGAM, and it should be administered within 72 hours following the miscarriage.

CLINICAL STUDIES

Results from extensive clinical trials of RhoGAM have been reported recently. Compilations of data from all RhoGAM studies clearly show its effectiveness.[4] From a total of 1,199 patients who received RhoGAM and were followed six months or more post-delivery, only one woman demonstrated an anti-Rh_0 (D) antibody. However of 731 control patients, 52 (7.1 per cent) have become immunized. Similarly, 144 women were followed through a subsequent pregnancy. One of 82 patients in the treated group has become immunized, compared to 13 (20.9 per cent) of 62 controls.

The occasional failures with Rh-immunoglobulin therapy may have been due to previous isoimmunization, with antibody levels too low to be detected; to transplacental hemorrhage during pregnancy, with isoimmunization occurring too early to be prevented by the immunoglobulin administered during the puer-

Dr. White is an associate professor of obstetrics and gynecology. This article appeared initially in the December, 1968, issue of DRUG LETTER, a monthly intramural publication of University Hospitals, Iowa City. It is reprinted here at the suggestion of the Clinical Pharmacology Committee at the University, and with the permission of the author.

perium; or to transplacental hemorrhage at the time of delivery too large for the dose of immunoglobulin that was given. To counteract the last-mentioned potential cause of failure, it has been suggested that more than one vial (containing 1.0 to 1.5 ml.) be injected when there has been a large transplacental hemorrhage, but the dosage requirements in these situations have not been definitely established.

CONTRAINDICATIONS

RhoGAM should *not* be administered to:

1. An Rh_0 (D)-positive or D^u-positive individual, for fear that it may produce hemolysis.
2. An Rh_0 (D)-negative patient who has received an Rh_0 (D)-positive blood transfusion.
3. A patient previously immunized to the Rh_0 (D) blood factor, because the RhoGAM will be ineffective.
4. A patient prior to delivery, even if there is evidence of a large transplacental hemorrhage. The immunoglobulin might cross the placenta and provoke hemolysis in the fetus.

ADVERSE EFFECTS

Reactions are mild, infrequent and usually confined to the intramuscular injection site. Slight elevations of temperature have been noted in a small number of women postpartum. Systemic reactions are rare, and sensitizations due to repeated injections of immune globulins are unusual.[5] There have been no reports that immune serum globulin (human) transmits serum hepatitis.

CONCLUSION

Intramuscular injection of RhoGAM after each Rh-incompatible pregnancy constitutes effective prophylaxis against Rh isoimmunization, and markedly reduces the risk of hemolytic disease in the patient's next Rh-positive infant. It is expected that the use of this preparation will diminish the incidence of this dread disease.

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Iowa Academy of Ophthalmology and Otolaryngology

The Iowa Academy of Ophthalmology and Otolaryngology will hold a program at the Ramada Inn, a motel on the west edge of Iowa City, on Friday September 19 and Saturday morning September 20. The guest speakers are to be Paul C. Wetzig, M.D., a Colorado Springs ophthalmologist, and Friedrich S. Brodnitz, M.D., a New York City otolaryngologist.

The morning scientific session is to start promptly at 9 o'clock, and there is also to be an afternoon session, both at the Ramada Inn. An evening social program will be presented at the Highlander Club.

The football game between the University of Iowa and Oregon State University will be played on Saturday afternoon, September 20. Write for football tickets to the University of Iowa Athletic Department, and to the motel for your housing. The Ramada Inn requires a $15 deposit for each motel reservation. Mention the Iowa Academy of Ophthalmology and Otolaryngology.

Psychiatry for General Practitioners and Other Physicians

The U. of I. Department of Psychiatry will present a course in psychiatry for general practitioners and other physicians on 23 Wednesday evenings between September 17, 1969, and April 29, 1970, at the Psychopathic Hospital in Iowa City. The program is supported by the National Institute of Mental Health, and there is to be no registration or course fee. Because the Johnson County Medical Society's meeting occurs on the first Wednesday each month, the psychiatry classes will not be offered on that evening.

The topics to be covered include Psychiatry as a Medical Specialty; Doctor-Patient Relationship; Biologic Bases of Behavior; Diagnosis; Psychodynamic Bases of Behavior; Psychophysiologic Disorders; Psychological Concomitants of Physical Illness; Psychiatric Emergencies; Depressive Illnesses; Schizophrenia; Suicide; Organic Brain Disease; Psychopharmacology; Alcoholism; Drug Abuse and Addiction; Child Psychiatry Problems; Adolescent Problems; Marital and Sexual Problems; and Availability and Use of Community Mental Health Services.

For further information, address Garfield Tourney, M.D., U. of I. Department of Psychiatry, Iowa City 52240. Advance registration is necessary.

INFORMATION FROM THE
IOWA HEART ASSOCIATION

Treatment of Shock Following Myocardial Infarction

JAY N. COHN, M.D.
Washington, D. C.

NEWER REFINEMENTS in patient monitoring and management have significantly reduced the mortality from acute myocardial infarction, but the occurrence of shock still carries a grave prognosis. Once shock develops, the survival of the patient is entirely dependent on the perception, attentiveness and judgment of his physician.

Shock is characterized by a critical reduction in tissue perfusion. Inadequacy of blood flow impairs organ function and disrupts the integrity of normal metabolic pathways. If shock is not promptly corrected, the flow deficiency leads to organ damage, metabolic acidosis, and a vicious circle resulting in progressive circulatory deterioration and death. The sooner the syndrome can be recognized, the more likely is therapy to be effective. The need for prompt recognition of shock must not, however, be satisfied at the expense of "overdiagnosis." It is in this initial evaluation that the physician's perceptiveness is critical. He must be able to recognize the difference between the mildly hypotensive patient who is adequately perfusing his tissues (and needs no immediate treatment), and the patient who is in the incipient stages of shock and requires prompt therapy to restore peripheral blood flow.

In considering the diagnosis of shock one should pay careful attention to the following:

1. *Skin temperature.* Warm skin indicates adequate cutaneous blood flow and usually a fairly well maintained cardiac output. Cool, clammy skin indicates sympathoadrenal discharge—a sign of reflex vasoconstriction in response to a fall in cardiac output.

2. *Peripheral pulses.* Thready or absent brachial and radial pulses indicate either severe hypotension or, more often, intense vasoconstriction. In either case, urgent treatment is indicated. Femoral-artery pulsation will be very weak if the patient is hypotensive, but in the presence of peripheral vasoconstriction the pulsations are bounding.

3. *Auscultatory blood pressure.* This is not a reliable guide to intra-arterial pressure in shock. A low cuff pressure has the same significance as weak upper-extremity pulses. However, an absent auscultatory pressure usually indicates inadequate blood flow and calls for treatment.

4. *Mentation.* If the patient is alert and responsive, his cerebral blood flow is probably adequate. Agitation, confusion or somnolence are signs of deficient cerebral blood flow, and they usually are associated with a fall in arterial pressure.

5. *Urine output.* A urine flow of less than 20 ml./hour, with a low urine sodium concentration, is evidence of inadequate renal blood flow. If it is not corrected, it can lead to tubular necrosis.

6. *Cardiac function.* Persistent or recurrent chest pain or arrhythmias in the presence of other signs of hypotension may be accepted as presumptive evidence of functional impairment of coronary blood flow.

7. *Acidosis.* Low arterial blood pH and elevated blood lactate mean reduced tissue oxygenation. Arterial blood-gas and pH studies are invaluable in the management of patients in shock.

The presence of one or more of the above signs of inadequate tissue blood flow in a patient with an acute myocardial infarction is presumptive evidence of shock. Mild hypotension in the absence of any of these signs should not be diagnosed or treated as "shock."

When the diagnosis of shock has been made, several questions regarding the hemodynamic status of the patient should be answered before definitive treatment can be instituted:

1. *Is the patient severely hypotensive?* Hypotension is an immediate threat to life because of the associated impairment of cerebral and coronary blood flow. Since the cuff pressure may be low even though arterial pressure is normal, the strength of femoral-arterial pulsations often is a more reliable guide to blood pressure. In some patients, direct recording of arterial pressure may be necessary.

2. *Is blood volume adequate?* Some patients become hypovolemic in the hours following an acute myocardial infarction, and the reduction in plasma volume may then become an important factor in the genesis of shock. The central venous pressure (CVP) is a vital guide to the adequacy of circulating volume, and it should be monitored in all patients with shock. This can be accomplished by threading a catheter through a needle in the brachial, femoral or subclavian vein, and advancing it into the thorax. A low CVP (less than 6 cm. H_2O with the zero level at the mid-chest) is an indication for a trial of volume-expansion. In myocardial infarction, the left ventricle often is in

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failure while the CVP is normal. Therefore, volume expansion should be carried out cautiously. A rise in CVP of more than 2 cm. H_2O during an infusion of dextran, saline or other fluid indicates that volume has been adequately restored. If shock is not corrected by volume expansion, the presence of significant left-ventricular failure can be assumed.

3. *Is cardiac function severely impaired?* If peripheral blood flow is markedly reduced and the CVP is high, then myocardial failure is obviously an important factor in the shock. Heart rate is not a very useful index of cardiac function. Indicator dilution cardiac output data are of value in the evaluation of myocardial function in selected cases.

4. *What is the status of the peripheral vessels?* Is there evidence of intense sympathetic discharge? This usually is manifested by cutaneous vasoconstriction, and it indicates renal vasoconstriction as well. In early stages of shock, peripheral constriction may support fairly normal arterial pressure despite progressive tissue hypoperfusion and lactic acidosis.

The purpose of therapy in shock is to restore adequate organ perfusion. Effective therapy must be based not only on an understanding of the physiological disturbance in the individual patient but also on a thorough understanding of the pharmacologic action of the useful drugs.

The following drugs may be valuable in certain patients with cardiogenic shock:

1. *Isoproterenol.* This is a catecholamine with pure beta adrenergic activity; that is, it stimulates the heart and dilates the peripheral vessels. It is probably the agent of choice when impairment of cardiac function has led to a severe reduction in cardiac output, especially when reflex vasoconstriction is present. Isoproterenol, 1 or 2 mg., should be diluted in 500 ml. of 5 per cent dextrose in water, and the rate of infusion should be gradually increased until the signs of shock are corrected or a disturbance of cardiac rhythm limits further administration. In some cases the concentration of isoproterenol must be increased as much as 2 mg./100 ml. to obtain a satisfactory effect. Lidocaine may be effective in controlling ventricular irritability during isoproterenol infusion. In some hypotensive patients isoproterenol will not significantly increase arterial pressure, and cerebral and coronary perfusion are not improved. In this situation a vasoconstrictor-inotropic agent may be necessary.

2. *Levarterenal (Norepinephrine) or metaraminal.* These drugs have an alpha adrenergic (vasoconstrictor) effect on peripheral vessels, combined with myocardial stimulating properties. Because these drugs may reduce renal and splanchnic blood flow, they should be used only when isoproterenol is ineffective. The infusion rate should be the smallest amount necessary to increase the systolic arterial pressure over 100 mm. Hg.

3. *Digitalis.* The cardiac glycosides have less potent inotropic effects than the catecholamines. They also have vasoconstrictive properties when used intravenously. It is probably best to treat acute cardiogenic shock with the adrenergic inotropic drugs mentioned above, and to administer digitalis orally for its more sustained effect.

4. *Atropine.* If shock is associated with sinus bradycardia, 1 mg. of atropine intravenously may be effective in restoring heart rate and blood flow. Drugs, such as atropine and isoproterenol which produce an increase in atrial rate must be used cautiously in the presence of atrioventricular block. Under these circumstances, an increase in atrial rate may result in a decrease in ventricular rate.

5. *Furosemide.* This potent diuretic can help establish urine output in the oliguric patient. After shock has been treated with the vasoactive compounds listed above, a diuretic response to an intravenous infusion of 200 mg. of furosemide indicates that renal perfusion is adequate. If oliguria persists, however, more aggressive attempts to improve blood flow are necessary.

6. *Sodium Bicarbonate.* If the arterial pH is less than 7.35, sodium bicarbonate should be administered in amounts sufficient to restore the pH to above that level. Treatment should be initiated with 40-100 mEq. of sodium bicarbonate, and further alkali therapy based on arterial blood pH measurements.

7. *Ventricular Pacing.* If shock and marked bradycardia co-exist, an increase in ventricular rate by means of catheter electrode pacing is often of great clinical benefit.

Pharmacologic approaches such as the use of sympathetic blocking agents, and other inotropic drugs such as dopamine and glucagon are still in the experimental stage.

The effective management of shock requires not only the correct therapy in the correct amounts, but also close continuous monitoring of cardiovascular function. Adrenergic drug dosages should be reduced and then discontinued as soon as possible. Blood volume may be inadequate after cardiac function has improved, and a falling CVP may be an indication for administration of dextran even in patients who have manifested heart failure only a few hours before. If rhythm disturbances persist, electrical pacing by means of a transvenous pacemaker may help improve peripheral blood flow.

It is clear that intelligent use of the means currently available can be effective in salvaging many patients who would otherwise succumb to cardiogenic shock. In others, however, the impairment of cardiac performance is so severe that medical therapy is ineffective. In the latter—a selected group of patients—a mechanical means of temporary circulatory support may eventually become an important adjunct to management.

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Convalescence following medical or surgical procedures may be almost endless to an anxious patient. And, indeed, anxiety with some patients actually retards progress—for example, by inducing insomnia and reducing cooperation.

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Contraindications: History of sensitivity to meprobamate.

Important Precautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use has been reported to result in dependence or habituation in susceptible persons, as alcoholics, ex-addicts, and other severe psychoneurotics. After prolonged excessive dosage, reduce dosage gradually to avoid possibly severe withdrawal reactions. Abrupt discontinuance of excessive doses has sometimes resulted in epileptiform seizures.

Warn patients of possible reduced alcohol tolerance, with resultant slowing of reaction time and impairment of judgment and coordination.

Reduce dose if drowsiness, ataxia or visual disturbance occurs; if persistent, patients should not operate vehicles or dangerous machinery.

Side Effects include drowsiness, usually transient; if persistent and associated with ataxia, usually responds to dose reduction; occasionally concomitant CNS stimulants (amphetamine, mephentermine sulfate) are desirable. Allergic or idiosyncratic reactions are rare, but such reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Previous history of allergy may or may not be related to incidence of reactions. Mild reactions are characterized by itchy urticarial or erythematous maculopapular rash, generalized or confined to groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have been reported. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. If allergic reaction occurs, meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Treat symptomatically as with epinephrine, antihistamine and possibly hydrocortisone. Aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia have occurred rarely, almost always in presence of known toxic agents. A few cases of leukopenia, usually transient, have been reported on continuous administration.

Meprobamate may sometimes precipitate grand mal attacks in patients susceptible to both grand and petit mal. Extremely large doses can produce rhythmic fast activity in the cortical pattern. Impairment of accommodation and visual acuity has been reported rarely. After excessive dosage for weeks or months, withdraw gradually (1 or 2 weeks) to avoid recurrence of pretreatment symptoms (insomnia, severe anxiety, anorexia). Abrupt discontinuance of excessive doses has sometimes resulted in vomiting, ataxia, tremors, muscle twitching and epileptiform seizures. Prescribe very cautiously and in small amounts for patients with suicidal tendencies. Suicidal attempts have resulted in coma, shock, vasomotor and respiratory collapse and anuria. Excessive doses have resulted in prompt sleep; reduction of blood pressure, pulse and respiratory rates to basal levels; and occasionally hyperventilation. Treat with immediate gastric lavage and appropriate symptomatic therapy. (CNS stimulants and pressor amines as indicated.) Doses above 2400 mg./day are not recommended.

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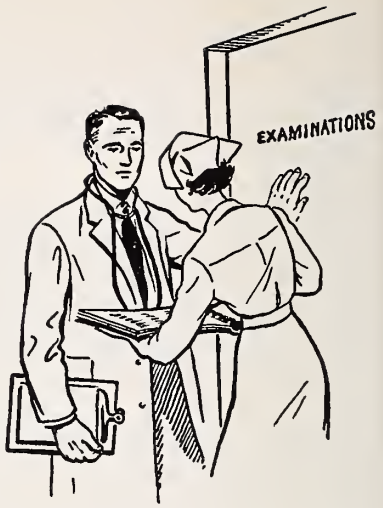
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THE DOCTOR'S BUSINESS



Pros and Cons of Group Practice

MR. LARRY E. LEAVERTON
Des Moines

With the professional corporation on the horizon, there is renewed interest among some Iowa physicians in joining others in group practice, or in expanding their facilities.

There have been many articles, reports and government studies on the current trend to group practice. In discussing these trends it is important that we attempt to define what is meant by "group practice." The AMA has defined it as the application of medical service by a number of physicians working in systematic association, with the joint use of equipment and technical personnel, and with centralized administration and financial organization. That definition is pretty broad. It covers the multi-specialty group, the single-specialty and general-practice group, and even the multi-specialty prepaid (closed-panel) group.

In Iowa the establishment of group practices has occurred as new physicians have been brought into our communities. Partnerships have been formed in single specialties or in general practice, and they have grown through the adding of new physicians as the needs of the community and the availability of additional doctors have dictated. The size rather than the number of multi-specialty groups has grown.

It has been difficult to form a new group by enlisting established doctors. It takes a strong leader and administrator to pull a group of diverse specialists into one practice.

Some have hailed group practice as a possible answer to rising costs and to the need for increased efficiency. Whether it is or not depends upon the efficiency of the individual doctors and of the management of the group. Group practices don't necessarily have lower overheads and their members don't necessarily do better financially. In 1968, according to figures compiled by our firm, the large multi-specialty groups had *higher overheads,* and there was *less net income per doctor* than in the smaller groups and the solo practices! The small groups (three to five doctors) averaged slightly less than 40 per cent overhead, and their members had net incomes comparable with that of the solo practitioner.

Such questions as whether to practice solo or in a group, and if in a group, then what type of group are very personal ones—ones that have to be answered by each and every doctor. The doctor's philosophies, interests and goals must be defined. The best reason for group practice—large or small, single- or multi-specialty—is to combine professional resources and talents for the more effective practice of medicine. Economic considerations, although important, should be secondary. We have found that if an effective practice of medicine is accomplished, favorable economic results usually follow.

Some physicians should not, or do not need to, practice in a group. Dr. A. is in a specialty with few emergencies. He operates a very efficient office, is highly productive and gives quality care to his patients. He has an arrangement with a colleague under which each covers for the other. Dr. B. is in a scarce specialty. His patients are referred by other physicians in his area. By joining a group, he could damage his relationship with the refering doctors. Dr. C. is in a highly productive high-income specialty. His overhead is low. Association with a multi-specialty group could cause him problems regarding division of income.

On the other side, there are some prime candidates for group practice. Dr. D. would like a larger and more flexible layout, more personnel, expensive equipment and coverage when he is away for weekends, vacations and refresher courses. Dr. E. has a successful general practice in a prosperous but small community with a well-equipped hospital 20 miles distant. He joins a group in a new medical building just across the street from the hospital. Dr. F. is just completing a residency. He has a wife, two children and an

Mr. Leaverton has been associated with Professional Management Midwest since 1949. He is a partner in the firm, and is director of its Research and Development Department.

accumulation of debts. An established group has much to offer him—a surplus of patients, financial backing, an immediate income, fully-equipped facilities, and instant consultation with senior doctors. Dr. G. is a brilliant physician but somewhat of an introvert. He has no desire to cope with the business or administrative side of medical practice. He wants security and a reasonably steady income, but prefers to let someone else make the business decisions.

Even though there is still opposition from the Internal Revenue Service, there are some good candidates for professional corporations among existing medical groups if and when favorable Iowa legislation is passed. However forming a group or association just for the purpose of incorporating is unwise. There should be something more than tax and other economic benefits to justify the action. The solo practitioner who wants very much to retain his independence and to run things himself may be happier doing without these economic benefits. In a group, individualism must be curbed for the sake of cooperation. The conduct of corporate affairs is formal, detailed and time-consuming. Decisions by a board of directors, the setting of doctors' salaries, etc., may be distasteful to some prospective corporation "employees." Large groups now in existence which have had administrative problems, however, may find the corporation a better administrative mechanism.

Whatever your decision, make it after a careful study of all aspects of the problem, and after securing experienced legal and management counsel.

Pediatric Assistants

The American Academy of Pediatrics has undertaken to improve the delivery of child health care in the United States by initiating a national program to train allied child health personnel, including pediatric nurse associates, pediatric office assistants, and pediatric aides. The Academy hopes that more than 6,000 associates, assistants, and aides will be trained within the next five years, thereby greatly increasing the pediatrician's capability to provide comprehensive pediatric care to larger segments of the public. To implement this program, the Academy's Executive Board, meeting in Evanston, approved the establishment of a Division of Child Health Manpower within the AAP Central Office.

The AAP Executive Board also unanimously endorsed as official Academy policy the position that a physician may delegate to a properly trained individual working under his supervision, the responsibility of providing appropriate portions of health examinations and health care for infants and children.

Specific objectives and responsibilities for the AAP Division of Child Health Manpower are now in the planning stage. However, responsibilities may include development of training guidelines, accreditation of educational institutions training such personnel, and certification of allied child health personnel. The Academy will explore the possibility of meeting some of these obligations in cooperation with other national organizations including the American Nurses Association, the National League of Nursing, the American Medical Association, and the American Association of Junior Colleges.

The Academy has recommended development of the following classifications of child health personnel:

Pediatric Nurse Associate: A registered nurse who has completed a diploma nursing program or an associate degree nursing program, or is a graduate of a baccalaureate nursing program. This associate will also have completed a recognized pediatric nurse associate (practitioner) program of about nine months' duration. A pediatric nurse associate's responsibilities may include obtaining medical and health histories; performing portions of the physical examination; giving information and counsel; and managing health problems. She will perform these tasks under the supervision of a physician.

Pediatric Office Assistant: A pediatric office assistant will, when possible, have completed at least two years of college or its equivalent, or be a graduate licensed visiting or licensed practical nurse. She will work under the supervision of a physician or a nurse associate. Her responsibilities may include activities that aid the physician or nurse associate in patient care, e.g., obtaining medical histories, performing screening procedures, and various administrative, clerical and minor technical functions, or other duties as the physician or nurse associate may direct.

Pediatric Aide: A pediatric aide, when possible, will have completed at least high school or its equivalent. A pediatric aide will usually have been trained on the job by a pediatrician certified by the American Board of Pediatrics. She will work under the supervision of a physician, pediatric assistant, or pediatric nurse associate.

These classifications are subject to changes. The American Medical Association, in cooperation with the medical specialty organizations including the AAP, is presently studying the classifications of allied health personnel to develop standardized terminology.

The survey revealed that a large percentage of practicing pediatricians are performing patient care tasks which they feel can and should be delegated to other health personnel.

The Academy is the pan-American association of physicians certified in the care of infants, children, and adolescents. The AAP has more than 10,600 members in the U. S., Canada, and Latin America.

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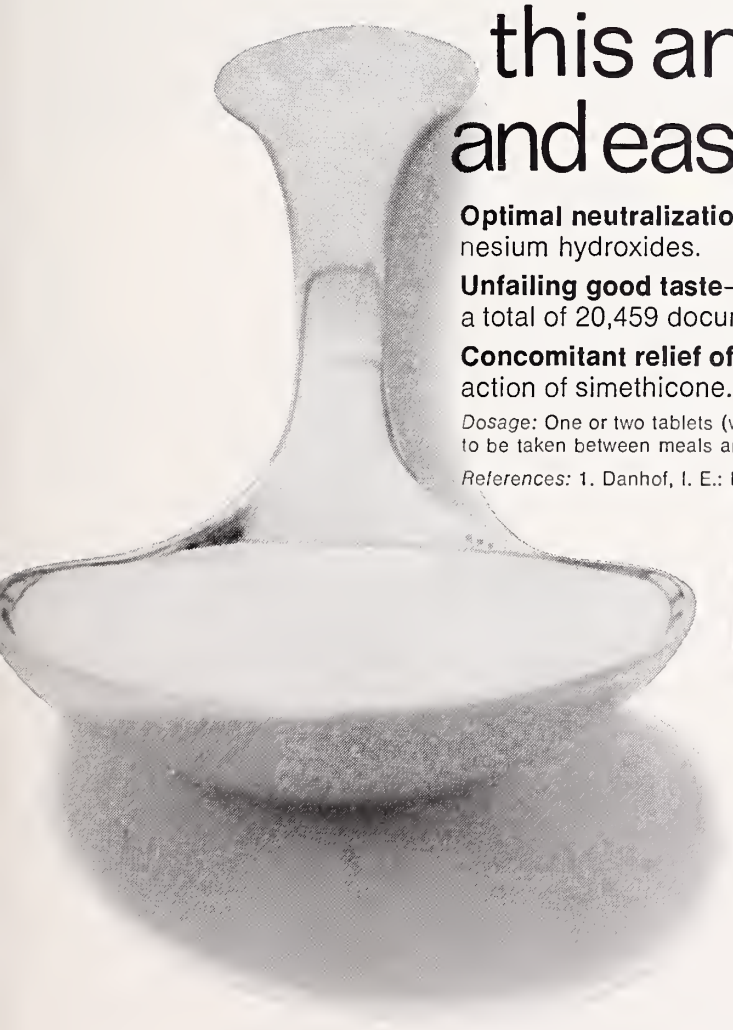
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References: 1. Danhof, I. E.: Report on file. 2. Hoon, J. R.: Arch. Surg. 93:467 (Sept.) 1966.

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Tybatran (tybamate) has been used with benefit in the treatment of depressive symptoms associated with anxiety and other symptoms of psychoneuroses. However, it is not indicated for primary treatment of depressive states. It is not an antipsychotic agent, although it has been used as adjunctive therapy in some psychotic patients.

Dosage: One 350 mg. capsule, 3 times daily and two at bedtime is suggested as the adult starting dose. Adjust to suit individual requirements. Daily doses above 3000 mg. are not recommended.

Contraindications: Known hypersensitivity to tybamate. Since no studies have been done with this drug in human pregnancy, it should not be used in pregnancy unless the potential benefit outweighs the risk.

Warnings: Administer cautiously to patients receiving phenothiazines or other CNS depressants or having history of convulsive seizures (See Adverse Reactions). Consider possibility of additive actions with alcohol or other psychotropic agents, particularly phenothiazines or MAO inhibitors.

Precautions: Avoid abrupt withdrawal after prolonged use, although withdrawal symptoms have not been reported to date. Exercise caution in addiction-prone individuals. If symptoms of hypersensitivity occur, discontinue at once and initiate appropriate symptomatic treatment. Avoid activities requiring optimal mental alertness if drowsiness or vertigo are present. As with any new drug, use cautiously in patients with history of drug allergies, blood dyscrasias, and hepatic or renal disease; periodic measurements of hepatic, hematopoietic and renal function should accompany prolonged and/or high doses.

Adverse Reactions: Most frequent reactions, rarely requiring discontinuation of tybamate, include drowsiness, dizziness, nausea, insomnia, and euphoria. There have been a few reports of skin rash, urticaria, and pruritus. Rare side effects include hyperactivity, fidgetiness, flushing, and tachycardia, suggesting excessive stimulation; also ataxia, unsteadiness, confusion, feeling of unreality, "panic reaction," fatigue, headache, paresthesias, vertigo, gastrointestinal disturbances, glossitis, and dry mouth. Grand mal or petit mal seizures have been reported in a few hospitalized psychotic patients receiving tybamate (up to 6000 mg. daily) together with phenothiazines and other psychotropic agents, but not with tybamate alone. Consider the possibility of rare, serious adverse reactions such as may occur with the related drug, meprobamate. If excessive amounts are ingested, gastric lavage and symptomatic therapy, including central stimulants as necessary, are recommended. Before prescribing, consult package circular.

Supply: Tybatran (tybamate) is available in green, sealed capsules of three strengths: 350 mg., 250 mg., and 125 mg. Each strength is supplied in bottles of 100 and 500.

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Guidelines for Hospital Patient-Care Committees†

The historical relationship between doctor and nurse is at present undergoing pressure from changing social forces, technological change and increased demands by members of society for a higher level of wellness. In each hospital situation, bearing in differing degrees and yet in essence a likeness in the problems to be faced, there is a constant search for better patient care. The patient—the benefactor of the doctors' and nurses' efforts—profits to a higher degree when the problems are coped with, and the efforts are united and collaborative.

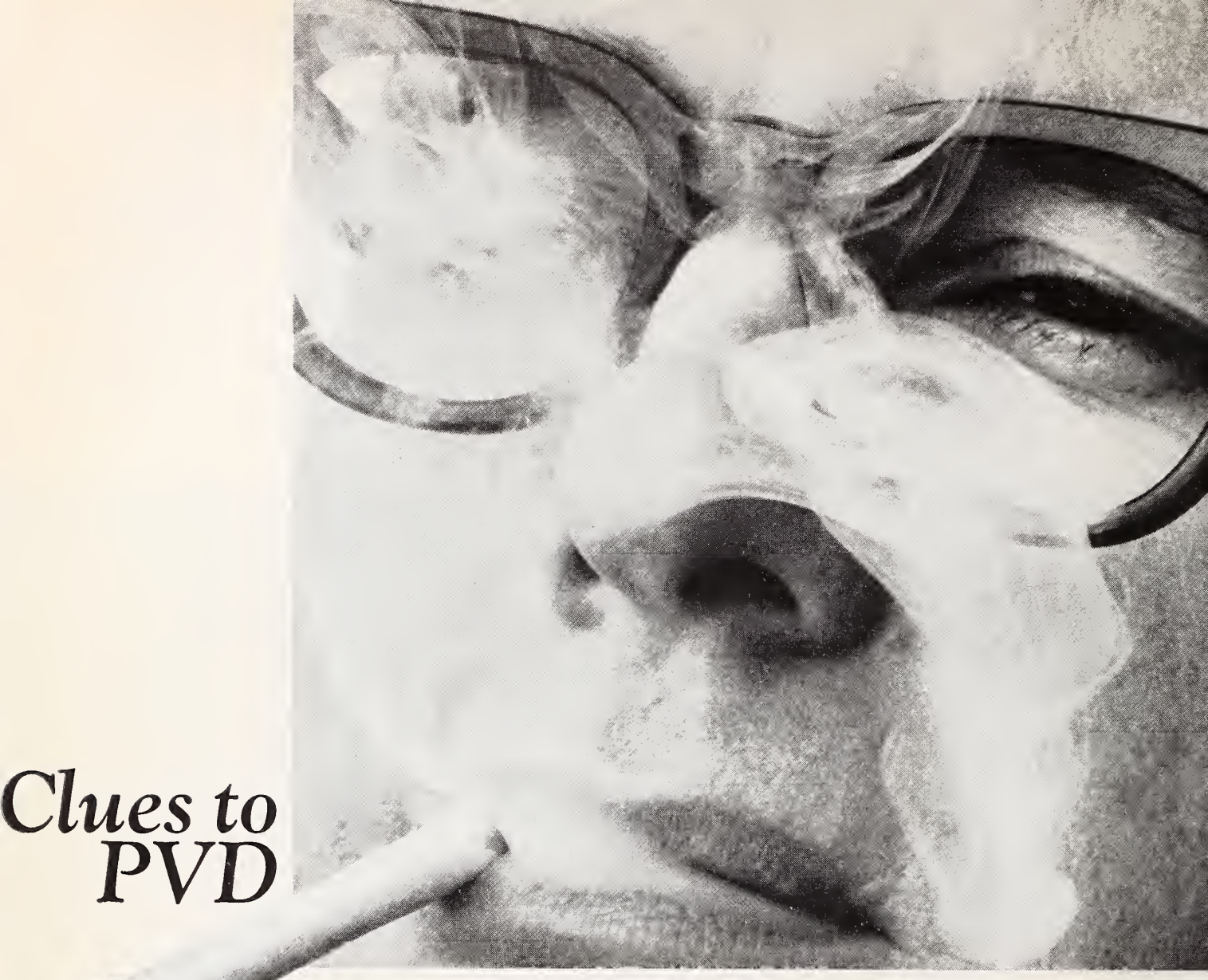
Doctors and nurses—sharing as they do in the care of all hospitalized patients—need an interdependent time in a non-crisis situation to look at those patient-care problems each group faces which affect the other. Although doctors and nurses are in constant communication as they meet in hospital corridors and nurses' stations, they most often spend their time together in discussing reports or orders for specific patients. Identifying the gains to be made through united efforts can be greatly facilitated through the use of a patient-care committee. A committee such as this, composed of representative doctors and nurses, can develop mutual respect for one another's knowledge and judgment, thus laying a strong base for a collaborative relationship. Through greater understanding of one another's opinions and attitudes, fragmentation of patient care can be deterred. A common meeting ground is provided on which doctors and nurses can discuss the objectives of patient care, the components of patient care and the evaluation of patient care.

The size of the group, its composition, the frequency of its meetings, and whether there is one patient care committee for the hospital, or one for each specialty, will depend upon the hospital itself. Needs, resources and desires will determine the focus of each individual committee. The one purpose, however, which hospital patient-care committees throughout the State of Iowa must have is the improvement of patient care. The aspects of patient care which medicine contributes and which nursing contributes are intertwined and interdependent. Doctors' and nurses' needing to recognize the collaborative roles that they play is not new—but their discussing that need openly *is* new.

In the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, Dr. George Reader* speaks of the collaborative activity in which "the physician retains his responsibility for decisions concerning medical diagnosis and treatment, but looks more and more to the nurse to take an active part in contributing to these decisions through a careful appraisal of the patient and the patient's family." Nurses, utilizing a team concept for nursing care, recognize that without the doctor's participation the team has but half its strength. The patient-care committee, with improvement of patient care as its focus, can unite the efforts of nursing and medicine in ways appropriate to each individual hospital.

* Reader, G., and Schwartz, D. R.: Joint planning for patient care. J.A.M.A. **201**:104-107, (Aug. 7) 1967.

† Developed by an Interorganizational Committee of the Iowa Medical Society, the Iowa Nurses' Association and the Iowa League for Nursing, and adopted by those three groups, plus the Iowa Hospital Association.



Clues to PVD

The heavy smoker with vasospasm

He may be comparatively young or approaching middle age. Typically, he is a heavy cigarette smoker—a pack or more a day for a number of years. Whether smoking is a causative or an important exacerbating factor in peripheral vascular disease is still under discussion. But the vasoconstrictive effects of nicotine are firmly supported by a substantial body of laboratory and clinical evidence, and the close association is now generally accepted.

Thus, a history of heavy smoking coupled with vasospasm may serve as warning signals to the physician. When a diagnosis is established, therapeutic measures are directed toward increasing the local circulation, and appropriate management of the patient's general medical needs should be instituted. These include the important safeguards of keeping warm and refraining from smoking.

Before prescribing Roniacol Timespan (nicotinyl alcohol tartrate), please consult complete product information, a summary of which follows.

Indications: Conditions associated with deficient circulation; *e.g.*, peripheral vascular disease, vascular spasm, varicose ulcers, decubital ulcers, chilblains, Meniere's syndrome and vertigo.

Caution: Roche Laboratories endorses caution in the administration of any therapeutic agent to pregnant patients.

Side Effects: Transient flushing, gastric disturbances, minor skin rashes and allergies may occur in some patients, seldom requiring discontinuation of the drug.

Dosage: 1 or 2 Timespan Tablets morning and night.

How Supplied: Timespan Tablets—150 mg nicotinyl alcohol in the form of the tartrate salt—bottles of 50.



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High degree of safety—side effects seldom require discontinuation of therapy.

Mild ulcerative colitis may be triggered here...



In mild ulcerative colitis, a number of factors can precipitate an attack: for instance, dietary indiscretion, such as eating raw foods, or emotional overreaction, such as that aroused by financial difficulties. No matter what causes the patient's sensitive colon to "act up," he soon suffers from acute discomfort... and often, from anxiety and apprehension as well. Such patients frequently respond well to adjunctive dual-action Librax® therapy.

Librax combines, in a single convenient capsule, the well-known antianxiety effect of Librium® (chlordiazepoxide HCl) and the dependable anticholinergic/antispasmodic effect of Quarzan® (clidinium Br). Therefore, as Librax helps to relieve the patient's excessive anxiety and reduce his overreaction to stress, it also, at the same time, helps to control hypersecretion and hypermotility, thus relieving spasm and abdominal discomfort.

With Librax, the dosage schedule is simple: 1 or 2 capsules, t.i.d. or q.i.d., will in most cases bring the patient significant relief of both the emotional and physical elements that contribute to his psychovisceral disorder.

Before prescribing, please consult complete product information, a summary of which follows.

INDICATIONS: Indicated as adjunctive therapy to control emotional and somatic factors in gastrointestinal disorders.

CONTRAINDICATIONS: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide.

WARNINGS: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

PRECAUTIONS: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and toler-

or here.



ated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

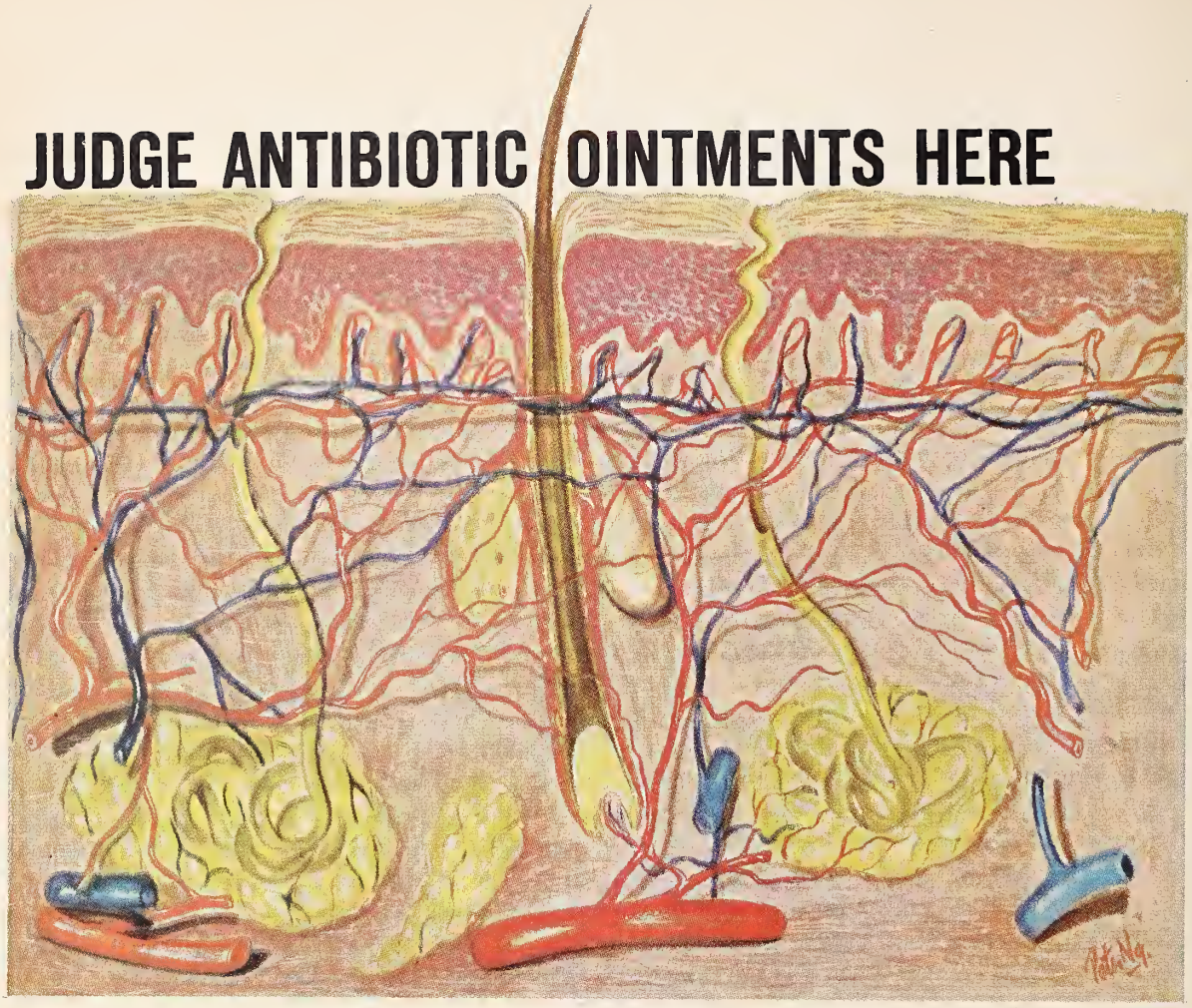
ADVERSE REACTIONS: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver-function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diet.

two good reasons for prescribing LIBRAX®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

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Caution: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

Contraindications: This product is contraindicated in those individuals who have shown hypersensitivity to any of its components.

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STATE DEPARTMENT OF HEALTH



JAMES F. SPEERS, M.D., M.P.H., COMMISSIONER

New Venereal Disease Control Law

The following act relating to the control and diagnosis of venereal disease was enacted by the Sixty-third General Assembly of the State of Iowa and became effective July 1, 1969.

Section 1. Chapter one hundred forty (140), Code 1966, is hereby repealed and the following enacted in lieu thereof.

Sec. 2. This Act shall be known as the "Venereal Disease Control Act."

Sec. 3. For the purposes of this Act venereal disease shall mean syphilis, gonorrhea, chancroid, granuloma inguinale, and lymphogranuloma venereum.

Sec. 4. Reports to the State Department of Health which include the identity of persons infected with venereal disease shall be kept secret, and all such information, records, and reports concerning the same shall be confidential and shall not be accessible to the public. However, such reports, information, and records shall be secret and confidential only to the extent which is necessary to prevent identification of persons named therein; and the other parts of such reports, information, and records shall be public records. The preceding sentence shall prevail over any inconsistent provision of this Act.

Sec. 5. Immediately after the first examination or treatment of any person infected with any venereal disease, the physician performing the same shall transmit to the State Department of Health a report stating the name, age, sex, marital status, occupation of patient, name of the disease, probable source of infection, and duration of the disease; except, when a case occurs within the jurisdiction of a local health department, such a report shall be made directly to the local health department which shall immediately forward the same information to the State Department of Health. Such reports shall be made in accordance with rules adopted by the State Department of Health. Such reports shall be confidential. Any person in good faith making a report of a venereal disease shall have immunity from any liability, civil or criminal, which might otherwise be incurred or imposed as a result of such report.

Sec. 6. Any person who is in charge of a public, private, or hospital clinical laboratory shall report to the State Department of Health, on forms prescribed by the Department, results obtained in the examination of all specimens which yield evidence of or are reactive for syphilis, gonorrhea, chancroid, granuloma inguinale, or lymphogranuloma venereum. The report shall state the name of the person from whom the specimen was obtained, the name and address of the physician or other person submitting the specimen, the laboratory results, the test employed, and the date of the laboratory examination.

Sec. 7. Any physician or other person who fails to make or falsely makes any of the reports required by this Act concerning persons infected with any venereal disease, or who discloses the identity of such person, except as herein provided, shall be punished as provided in this Act. Failure to report any venereal disease as specified in this Act shall be cause for the refusal of a renewal of license as required in section one hundred forty-seven point ten (147.10) of the Code.

Sec. 8. The local or the State Department of Health shall use every available means to determine the source and spread of any infectious case of venereal disease which is reported.

Sec. 9. The local board of health shall cause an examination to be made of every person reasonably suspected, on the basis of epidemiological investigation, of having any venereal disease in the infectious stages to ascertain if such person is so infected, and if so infected, to cause such person to be treated. No person shall be subjected to such examination who is under the care and treatment of a physician for the suspected condition. If a person suspected of having venereal disease should refuse to submit to an examination voluntarily, application may be made by the local board of health to the district court for an order compelling such person to submit to examination and if infected, to treatment. Such person shall be treated until certified to the local board of health or, if none, to the State Department of Health as no longer infectious. In every case of treatment ordered by the district court the attending physician shall so certify that the person is no longer infectious.

Sec. 10. A minor of age sixteen or more, who seeks diagnosis or treatment for a venereal disease, shall have the legal capacity to act and give consent to medical care and service for venereal

disease by public and private hospitals or public and private clinics or physicians. Such medical diagnosis and treatment is to be provided by a physician licensed to practice medicine and surgery, osteopathy, or osteopathic medicine and surgery. Such consent shall not be subject to later disaffirmance by reason of such minority. The consent of no other person or persons, including but not limited to spouse, parent, custodian, or guardian, shall be necessary. The physician shall notify the parents of such minor child that the child does have a venereal disease when the results of the diagnosis indicate that the child might communicate the disease to other members of his family.

Sec. 11. No certificate of freedom from any venereal disease shall be issued to any person by any official health agency except as provided by chapter five hundred ninety-six (596) of the Code.

Sec. 12. Each physician attending a pregnant woman in this state shall take or cause to be taken a sample of blood of each such woman within fourteen days of the first examination, and shall submit such sample for standard serological tests for syphilis to the State Hygienic Laboratory of the state university at Iowa City or some other laboratory approved by the State Department of Health. Every other person attending a pregnant woman in this state, but not permitted by law to take blood tests, shall cause a sample of blood of each such woman to be taken by a duly licensed physician, who shall submit such sample for standard serological tests for syphilis to the State Hygienic Laboratory of the state university at Iowa City or such other laboratories cooperating with and approved by the State Department of Health. If the blood of the pregnant woman reacts positively to such test, then, if she is married, the husband and other children by the same mother shall be subjected to the same blood tests as herein provided. If the pregnant woman is single, then the person responsible for the pregnancy and other children by the same mother shall be subjected to the same blood test as herein provided.

Sec. 13. Physicians and others attending pregnancy cases and required to report births and stillbirths shall state on the appropriate birth or stillbirth certificate whether a blood test for syphilis was made during such pregnancy upon a specimen of blood taken from the mother of the subject child and if made, the date when such test was made, and if not made, the reason why such test was not made. In no event shall the birth certificate state the result of the test.

Sec. 14. Each physician attending the birth of a child, shall cause to be instilled into the eyes of the newly born infant a prophylactic solution approved by the State Department of Health. This section shall not be construed to require medical treatment of the child of any person who is a member of a church or religious denomination and whose religious convictions, in accordance with the tenets or principles of his church or religious denomination, are against medical prophylaxis or treatment for disease.

Sec. 15. No provision of this Act shall be construed to require or compel any person, whose religious convictions are as described in section fourteen (14) of this Act, to take or follow a course of medical treatment prescribed by law or a physician. However, such person while in an infectious stage of disease shall be subject to isolation and such other measures appropriate for the prevention of the spread of the disease to other persons.

Sec. 16. Any person violating any of the provisions of this Act shall be punished by a fine of not more than one hundred dollars, or by imprisonment in the county jail for a period not to exceed thirty days, or by both such fine and imprisonment.

Prelicensing Statement on Rubella Virus Vaccine

The Public Health Service Advisory Committee on Immunization Practices developed the following recommendation in close collaboration with the Committee on the Control of Infectious Diseases, American Academy of Pediatrics, which endorses the recommendation. (Reprinted from the MORBIDITY AND MORTALITY WEEKLY REPORT, *Vol. 18, No. 15, Week Ending April 12, 1969.)*

Rubella Virus Vaccine, Live was licensed by the Federal Government on June 6, 1969. It is now available to physicians through normal commercial supply channels. The Department encourages its use in accordance with the following recommendations.

The live, attenuated rubella virus vaccine* soon to become available appears to be a highly effective immunizing agent and the first suitable method of controlling rubella.

Rubella is generally a mild illness, but if the infection is acquired by a woman in the early months of pregnancy, it poses a direct hazard to the fetus. Preventing infection of the fetus is the principal objective of rubella control. This can best be achieved by eliminating the transmission of the virus among children, who are the major source of infection for susceptible pregnant women. Furthermore the live, attenuated rubella virus vaccine is safe and protective for children, but not for pregnant women because of an undetermined risk of the vaccine virus for the fetus.

Rubella—Rubella is one of the common childhood exanthems. Most cases occur in school-age children, particularly during the winter and spring. By early adulthood approximately 80 to 90

* Its official name is Rubella Virus Vaccine, Live.

per cent of individuals in the United States have serologic evidence of immunity.

Rubella is clinically variable, and its common features, such as post-auricular and sub-occipital lymphadenopathy and transient erythematous rash, are often overlooked or misdiagnosed. A mild febrile illness may not be recognizable as rubella, and moreover, subclinical infection occurs, which further decreases the reliability of clinical history.

Complications of rubella are rare in children, but in adults, particularly in women, the illness is commonly accompanied by transient polyarthritis. Far more important is the frequent occurrence of fetal abnormalities when a woman acquires rubella in the first trimester of pregnancy.

Rubella Immunity—Immunity following rubella appears to be long lasting, even after mild illness or clinically inapparent infection. The only reliable evidence of immunity is a positive serologic test. However, because of the variation among reagents and technical procedures, results of serologic tests should be accepted only from laboratories of recognized competency that regularly perform these tests.

At the present time, the hemagglutination-inhibition (HI) antibody determination is particularly useful for evaluating immunity. It is a rapid and sensitive procedure. The complement fixation (CF) and other serologic tests are less useful.

Live Rubella Virus Vaccine—Live rubella virus vaccine is prepared in cell culture of avian or mammalian tissues. It is administered as a single subcutaneous injection. Although some vaccinees shed virus from the pharynx for two or more weeks after vaccination, there is no clear evidence of communicability. Approximately 95 per cent of susceptible vaccinees develop antibodies, but titers are lower than those observed following natural rubella infection. Recent investigations have shown that vaccination affords protection against illness following either natural exposure or artificial challenge.

Antibody levels have declined very little during the three-year period of observation of children who were among the first to be immunized with rubella vaccine. Long-term protection is likely, but its exact duration can be established only by continued observation.

More than 30,000 susceptible children have received live rubella virus vaccine in field investigations, with almost no untoward reactions. Only rarely has a transient arthralgia or evanescent rash been reported in children.

Many susceptible women have had lymphadenopathy, arthralgia, and transient arthritis beginning two to four weeks after vaccination; however, fever, rash, and other features of naturally-acquired rubella have occurred less commonly. Not enough susceptible men have been vaccinated to show whether they experience comparable reactions as frequently as women.

RECOMMENDATIONS FOR VACCINE USE

Live rubella virus vaccine is recommended for boys and girls between the age of one year and puberty. The vaccine should not be administered to infants less than one year old because of a possible interference from persisting maternal rubella antibody.

Children in kindergarten and the early grades of elementary school deserve priority for vaccination because they are commonly the major source of virus dissemination in the community. A history of rubella illness is usually not reliable enough to be the basis for excluding children from immunization.

Vaccination of adolescent or adult males is of much lower priority because so few are susceptible. However, the vaccine may be useful in preventing or controlling outbreaks of rubella in circumscribed population groups.

Pregnant women should not be given live rubella virus vaccine. It is not known to what extent infection of the fetus with attenuated virus might take place following vaccination, or whether damage to the fetus could result. Therefore, ***routine*** immunization of adolescent girls and adult women should ***not*** be undertaken because of the danger of inadvertently administering vaccine before pregnancy becomes evident.

Women of child-bearing age may be considered for vaccination only when the possibility of pregnancy during the following two months is essentially nil; each case must be considered individually. This cautious approach to vaccinating post-pubertal females is indicated for two reasons: first, because of the theoretical risk of vaccination in pregnancy; and second, because significant congenital anomalies occur regularly in approximately 3 per cent of all births, and their fortuitous appearance after vaccine has been given during pregnancy could lead to serious misinterpretation.

If vaccination of a woman of child-bearing age is contemplated, the following steps are indicated:

Optimally, the woman should be tested for susceptibility to rubella by the HI test (See *Rubella Immunity).*

If immune, she should be assured that vaccination is unnecessary.

If susceptible, she may be vaccinated only if she understands that it is imperative for her to avoid becoming pregnant for the following two months. (To ensure this, a medically acceptable method for pregnancy prevention should be followed. This precaution also applies to women in the immediate postpartum period.) Additionally, she should be informed of the frequent occurrence of self-limited arthralgia and possible arthritis beginning two to four weeks after vaccination.

Use of Vaccine After Exposure to Natural Infection. There is no evidence that live rubella virus

vaccine given after exposure will prevent illness. There is, however, no contraindication to vaccinating children already exposed to natural rubella. For women exposed to rubella, the concepts listed previously apply.

Precautions in Using Live Rubella Virus Vaccine

Pregnancy: ***Live rubella virus vaccine is contraindicated.*** (See *Recommendations for Vaccine Use.*)

Altered Immune State: Attenuated rubella virus infection might be potentiated by severe underlying diseases, such as leukemia, lymphoma, or generalized malignancy, and when resistance has been lowered by therapy with steroids, alkylating drugs, antimetabolites, or radiation. Vaccination of such patients should be avoided.

Severe Febrile Illness: Vaccination should be postponed until the patient has recovered.

Hypersensitivity to Vaccine Components: Rubella vaccine is produced in cell culture. Care should be exercised in administering vaccine to persons with known hypersensitivity to the species from which the cells were derived (indicated in the labeling). The vaccine contains a small amount of neomycin and should not be given to individuals known to be sensitive to this antibiotic.

Simultaneous Administration of Live Rubella Virus Vaccine and Other Live Virus Vaccines

Simultaneous administration of live rubella virus vaccine and other live virus vaccines should be deferred until results of controlled clinical investigations are available. Until then, it is recommended that rubella vaccination be separated by at least 1 month from administration of other live virus vaccines.

SURVEILLANCE

Careful surveillance of rubella infection is particularly important now that an effective vaccine is in use. Emphasis should be placed upon improved diagnosis and reporting of rubella, of the congenital rubella syndrome, and of complications of the disease. Competent laboratory investigations of all infants with birth defects suspected of being due to rubella are essential. It will likewise be important to observe patterns of vaccine use and to determine their effectiveness.

Medical Programs and Nebraska U. Football Games

The University of Nebraska College of Medicine has scheduled the following postgraduate conferences at hospitals in Lincoln (as indicated) on the weekends of home football games. Physicians who plan to attend should make housing reservations in advance. Each course registrant will be sold no more than two football tickets, while they last, by the Department of Continuing Education, University of Nebraska Medical Center, 42nd & Dewey, Omaha 68105.

October 17-18, Friday and Saturday

"Selected Problems of the G.I. Tract"
Bryan Memorial Hospital, Lincoln
in conjunction with the Nebraska-Kansas game

October 31-November 1, Friday and Saturday

"Obstetric Pediatric Neonatology"
(cosponsored by Denver Children's Hospital)
Lincoln General Hospital
in conjunction with the Nebraska-Colorado game

November 7 and 8 (Homecoming), Friday Evening and Saturday

Cornhusker Surgery Conference "Cecum to Rectum"
Lincoln General Hospital
in conjunction with the Nebraska-Iowa State game

Monthly Report for Month of June, 1969

Diseases	June 1969	1969 to Date	1968 to Date	Most June Cases Reported From These Counties
Brucellosis	7	17	9	Scott
Chickenpox	157	3369	4725	Black Hawk, Polk Pottawattamie
Food poisoning, staphylococcal	16*	16	52	Muscatine
German measles	147	2066	1719	Black Hawk, Des Moines, Pottawattamie, Woodbury
Gonorrhea	331	1923	1898	Urban counties
Infectious hepatitis	22	207	311	Polk, Woodbury
Infectious mononucleosis	18	358	244	Clay, Pottawattamie
Malaria, P. falciparum imported, delayed	1	2	0	Mitchell
Measles	31	321	89	Polk
Meningitis, bacterial	1	1	1	Poweshiek
Meningitis, mumps	1	1	1	Johnson
Meningococcal meningitis	3	14	7	Johnson, Mitchell, Wapello
Mumps	104	3881	10190	Black Hawk, Pottawattamie
Rabies in animals	10	49	78	Scattered
Rheumatic fever	3	24	16	Benton, Butler, Lee
Rocky Mountain Spotted Fever	1*	1	0	Linn
Salmonellosis	6	60	34	Polk
Shigellosis	6	13	35	Polk
Syphilis	54	366	387	Urban counties
Tuberculosis	15	71	66	Scattered

* Delayed.

Woman's Auxiliary News

From the President's Desk

The President's desk was bare last month as she prepared to leave for New York to attend the annual meeting of the Woman's Auxiliary to the American Medical Association. Hence the news in this issue is a bit sparse. This dearth of information will be more than compensated for in next month's issue which promises to be bulging with news of the convention and news of an exciting new project to be launched by our Auxiliary.

—Jeanne Coughlan (Mrs. D. W.)

Around the Hawkeye State

POTTAWATTAMIE

The members of the Woman's Auxiliary attended a salad luncheon in May at the home of Mrs Joseph Kruml. New officers installed at that meeting were: Mrs. Maurice Margules, president; Mrs. Isaac Sternhill, president-elect; Mrs. Hormoz Rassekh, vice-president; Mrs. M. Sebghati, secretary; and Mrs. Martyn Bierman, treasurer. From project receipts, donations are being planned to each local hospital to help pay for the furnishings of an emergency room.

The June meeting was an international husband-and-wife party held at the home of Dr. and Mrs. Jose Martinez.

WAPELLO

The Wapello County Medical Auxiliary has had two unusual coincidences in connection with officers serving at the state level.

Two of the Auxiliary's members have been state presidents. Mrs. E. B. Hoeven was state president-elect as the officers were installed May 6, 1952. Exactly 17 years later, on May 6, 1969, Mrs. L. H. Prewitt was the state president-elect as the local Auxiliary began the year's work with newly installed officers.

On May 6, in both 1952 and this year, Mrs. H. A. Spilman was installed as the county Auxiliary secretary!

Excerpts

This is an age when venereal disease—not measles or chicken pox—is the number-one communicable disease, and our teenagers are contracting it at the rate of 1,500 new cases every minute around the clock.

It is an age of theatre in the nude, and movies that serve as instruction manuals for violence, sexual promiscuity, drinking and drug abuse. The same could be said of many TV commercials and programs. We have ten-year-olds who are confirmed smokers, and fifteen-year-olds who are diagnosed alcoholics.

"Whose fault?" we ask. The answer is, "Just about everyone's." We are having a Youthquake; 41 per cent of the population is under 19 years of age, and by sheer numbers alone they are having, and will continue to have, a greater and greater impact upon our way of life. Much of this impact is good, but the rotten apples also have a tremendous influence, and today's environment favors their decay and extends their sphere of action. Time has not dimmed the wisdom of Cicero when he observed, "In nothing does man so nearly resemble the Gods, as he does when working for the well-being of his fellow man."—Food for thought from a speech by Janet Ellis at the Iowa Auxiliary's State Convention.

* * *

In His wisdom, God has given each of us an opportunity to choose his stars—to decide the kind of person he or she would *like* to be. Out of fidelity in following the stars one chooses, a person earns both self-respect and stature.

For "What we are is God's gift to us;
What we do—is our gift to the world."
Take time to dream;
It is hitching your wagon to a star.
Take time to be friendly;
It is the road to happiness.
If I thought that a word of mine,
Perhaps unkind and untrue,
Would leave its trace on a loved one's face,
I'd never speak it—Would you?

If I thought that a smile of mine
Might linger the whole day through

And lighten some heart with a heavier part,
I'd not withhold it—Would you?
For nobody needs a smile so much as those who have none left to give.
There is a destiny that makes us brothers;
None goes his way alone:
All that we put into the lives of others
Comes back into our own.

—Beautiful thoughts from a speech by Patty Lee at the Iowa Auxiliary's State Convention.

Volunteer Health Service Award Winner

Mrs. Duane Hilsabeck, of Fort Dodge, received the State Auxiliary's Volunteer Health Service Award at the closing session of the organization's 1969 meeting.

Mrs. Hilsabeck has engaged in numerous activities for the retarded and for crippled children and adults. She was a charter member of the Webster County Association for Retarded Children, Inc., and has been a member of its board of directiors for the past 15 years. She has held various offices in that organization. She was also a charter member of the Webster County Home Association—Project Concern, and is now a co-chairman of its board of directors.

Other volunteer organizations in which she takes an active part are the North Central Sheltered Workshop, Inc., the State Committee for the Aged Retarded, and the local chapters of the Heart Association and the Cancer Society.

In the past 16 years:

- She helped organize the original school for trainable retarded children at the Johnson Clayworks, and she has assisted the teacher on field trips, in bowling instruction, etc. since the school has been in its present location at Rosedale.
- She has helped organize and conduct the "Tardy Tots Nursery."
- She has served as den mother for a group of retarded boys.
- She has given talks at, or has attended, many workshops and meetings concerning problems of the retarded.
- She has been a volunteer helper at the Crippled Children's Clinic.
- She has participated in various fund drives for the retarded every year—Coffee Day, United Fund, township drives, and local state and national membership drives.
- As recreation chairman for the retarded, she has helped set up day-camp and swimming programs.
- She has helped plan bowling, skating, square-dancing and a Valentine party for young-adult retardeds.



Mrs. Duane Hilsabeck, of Fort Dodge (left), received the State Auxiliary's 1969 Volunteer Health Service Award, at the Auxiliary's annual meeting, from Mrs. Olin A. Elliott, of Des Moines.

AMA-ERF Fund Raising Projects

Note Paper

Playing Cards

Mrs. R. M. Perkins
125 East Rusholme Street
Davenport 52803

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

President—Mrs. D. W. Coughlan, 1435 Park Avenue, Des Moines 50315
President-Elect—Mrs. L. H. Prewitt, 33 Birchwood Hills, Ottumwa 52501
Recording Secretary—Mrs. O. A. Elliott, 4010 Welker Avenue, Des Moines 50312
Treasurer—Mrs. J. F. Veverka, Box 324, Prairie City 50228
Editor of THE NEWS—Mrs. D. A. Mater, 302 S. 4th Street, Knoxville 50138
Assistant Editor—Mrs. R. J. Foley, 1025-16th Street, West Des Moines 50265

Iowa Association of Medical Assistants

Highlights of Our Thirteenth Annual Convention

In mid-May, 1969, the largest gathering of medical assistants in the history of our organization took part in our Annual State Convention, hosted by the Scott County Chapter, in Davenport. In addition to our own members, we were honored by the presence of Mrs. Ruth Dize, the national AAMA president-elect, from Norfolk, Virginia; Mrs. Dene Murray, the AAMA executive director, from Chicago; Mrs. Ralph (Helen) Smith, immediate past-president of the Illinois Association of Medical Assistants; and Mrs. Claire Brouilette, the national AAMA insurance chairman, also from Illinois. This was the first time that national officers attended one of our conventions, other than in 1960 when our own Marian Little was the AAMA president.

During the Convention and at the post-convention board meeting, plans were formulated with Mrs. Dize and Mrs. Murray for the AAMA convention which is to be held in Des Moines during October, 1970. Co-chairmen Marian Little and Lucille Holmes will soon name their committee chairmen.

We were pleased, too, that 19 students were in attendance. These girls are enrolled in medical-assistant courses at area community colleges throughout the state, and they were accompanied by their instructors. Education for the prospective medical assistant is vitally important, and the possibility of becoming a certified medical assistant should be a real challenge for girls who are already employed and who are offered constant opportunities to improve their knowledge and skills.

The retiring president of the IAMA, Mrs. Jeanne D. Green, of Davenport, urged the young women attending the Convention to become involved in civic groups and to speak up for the medical profession and for medical assistants. "We cannot counter criticism without having the facts to substantiate our statements," she declared in her address to the General Assembly of the organization. "Be prepared to state the facts. As a growing branch of the paramedical team we have an obligation to increase our knowledge of public relations, especially as it applies to the doctor-patient relationship; to increase the competence of medical assistants through discussions and exchanges of ideas; and to help other medical assistants increase their understanding of their own and their doctors' professions by whatever other means are available. We must remember that our success depends upon the success of the offices in which we work.

"We must refrain from derogatory comments regarding other medical assistants or their employers," she cautioned, "and last but not least, we must deport ourselves with dignity and honesty in keeping with our responsibilities, in and out of our offices."

"Does our attitude reflect that of our office?" Mrs. Green asked. "Is it an image we can be proud of?"

The panel discussion "Professional Analysis, Part I," on Saturday morning, was well received. Helen Hughes discussed public relations—good manners, sound judgment, discretion, a pleasant tone of voice, a warm and gentle manner. Marian Little talked about communications—the art of understanding others, making ourselves understood, remembering to think before we speak, and listening to others. Barb Smith reviewed professional skills. "Try to anticipate your doctor's needs," she counseled. "And handle equipment carefully, for it is expensive." Sally Meade discussed interoffice adaptability, reminding us that the office manager should be familiar with all duties pertaining to that office. Teresa Messersmith was moderator. In the afternoon a new concept in education was introduced, with simulated programing and self-evaluation in "Professional Analysis, Part II." That type of programing will no doubt play an important part in future educational meetings.

Have you moved in the past few months? PLEASE send any changes of address to 1001 Grand Avenue, West Des Moines, Iowa 50265. Communication is a necessity: Do help keep our mailing list up to date. You are our best source of accurate information.

Honorary Member

Mr. Edward W. Hamilton, managing editor of the JOURNAL OF THE IOWA MEDICAL SOCIETY, was born and reared in Osakis, Minnesota. He received his B.Ed. from St. Cloud Teachers College (now St. Cloud State College), his M.A. in English from the University of Colorado, and his Ph.D. in English and philosophy from the University of Minnesota. He taught English at Louisiana State University for seven years and at Drake University for four years before joining the staff of the Iowa Medical Society where he has been publishing the JOURNAL for 16 years. Mr. and Mrs. Hamilton have a son, a daughter and eight grandchildren including twins, a boy and a girl. Reading is his hobby, and when time allows, woodworking. Those activities and pulling or pushing leaves and snow about and mowing grass—depending upon the season—constitute his relaxation.

For the past seven years, through the efforts of Mr. Hamilton, we have filled a page each month in the IMS JOURNAL. He has edited our literary efforts and helped to make them worthwhile. We welcome him as our newest honorary member!

Vasodilatation for "Stagnant" Shock

A film designed by The Upjohn Company to give physicians up-to-date information on shock therapy received a gold medal at the Atlanta International Film Festival. The film, titled "Lillehei on Stagnant Shock," took first place honors among more than 20 international entries in the category of medical documentaries. A total of more than 300 film makers from all over the world entered their work for the judging that took place in June at the Regency Hyatt House Hotel, in Atlanta.

This film is the seventh in the Upjohn Vanguard of Medicine® series. The series is in full color, ranging in length from 20 to 30 minutes, and available without charge for showing to members of the medical and allied professions.

Diametrically opposed to previous medical teaching, the film advocates using vasodilators rather than vasoconstrictors, a concept developed by Drs. R. C. Lillehei and R. H. Dietzman at the University of Minnesota Hospital. The film offers dramatic visual proof that severe shock almost always involves a marked reduction in peripheral circulation—hence the new term "stagnant" shock and the rationale for vasodilatation.

In the film's first section, through the use of *in vivo* cinemicrography of the mesentery microcirculation of dogs, Ted Bond and Dr. J. R. Derrick of the University of Texas illustrate the physiologic manifestations of endotoxin shock at the cellular level, and the comparative effects of the administration of plasma alone, plasma-plus-vasopressor, and plasma-plus-vasodilator.

Then the scene shifts to the University of Minnesota Hospital, where Drs. Lillehei and Dietzman explain and demonstrate the step-by-step management of an actual patient in stagnant endotoxic shock secondary to septic abortion.

Starting with the proper technique for inserting venous and arterial catheters, they show the effects of various therapeutic components, as monitored by their mobile shock unit. The film demonstrates how physicians anywhere, using ordinary equipment, can reasonably hope to achieve results comparable to the 60 per cent or greater survival rate achieved at the University of Minnesota Hospital.



State and national officers and ex-officers at our Davenport Convention. From left to right: Mrs. Ralph (Helen) Smith, of McHenry, Illinois, immediate past-president of the Illinois Medical Assistants; Mrs. Dene R. Murray, executive secretary, American Association of Medical Assistants, Chicago; Mrs. Walt (Jeanne) Green, Davenport, immediate past-president, Iowa Association of Medical Assistants; Mrs. Ruth Dize, Norfolk, Virginia, president-elect, American Association of Medical Assistants; and Mrs. Claire Brouilette, Hometown, Illinois, insurance chairman, American Association of Medical Assistants.



Personals



Dr. Willard C. Brinegar, 57, who had been superintendent of the Mental Health Institute at Cherokee for 21 years, retired on June 24. **Dr. J. O. Cromwell,** director of the Bureau of Mental Health Services under the State Department of Social Services, made the announcement, praising the work that Dr. Brinegar had done as head of the hospital and giving illness as his reason for retiring. **Dr. Fanny Ginzberg,** who has been the assistant superintendent, is in charge of the institution for the present, and **Dr. J. T. May,** who has been on the staff of the Institute at two different times in recent years, has agreed to take Dr. Brinegar's place.

The newly-installed president of the Iowa Society of Anesthesiologists is **Dr. Edward J. Safranek,** of Fort Dodge. The other new officers are **Dr. George M. Zaharis,** Des Moines, president-elect; and **Dr. James W. Hepplewhite,** Des Moines, secretary-treasurer.

Dr. John R. Camp, of Britt, took part in the rescue of a man for whom a 24-hour search had been conducted after he disappeared from his farm home on June 17. When finally located, the man was standing waist-deep in the hard-to-get-to west end of Crystal Lake. Dr. Camp, together with officers of the State Highway Patrol tried to persuade the man to return to shore, and it seems that the man recognized the doctor and walked to him. Dr. Camp took him to the Britt hospital for treatment.

Dr. S. P. Leinbach, of Belmond, called upon the personnel of the Institute of Agricultural Medicine, at the U. of Iowa College of Medicine, for suggestions after he, some other Wright County physicians, and the county director of the Cooperative Extension Service in Agriculture and Home Economics learned of severe chest pains, headache, nausea and slight elevations in temperature experienced by farm workers handling 1968 corn. The following precautions were decided upon: (1) Use of a dust mask, with frequent changes of filters. (2) Good ventilation, if at all possible. (3) Frequent rest periods. Men who experience the symptoms just enumerated should be cautioned to seek medical attention immediately.

Dr. J. E. Whitmire, of Sumner, returned on April 4 from his second tour of duty in Vietnam with the AMA's Volunteer Physicians program. He was in the war-torn country for two months, and during most of that time he performed surgery at Chau Doc, a town less than a mile from Cambodia which has figured prominently in recent military dispatches. His first two months in Vietnam were in the fall of 1967.

Work started during July on a project that will double the size of the building occupied by **Dr. K. D. Rodabaugh** in Tabor. The structure was originally built for and leased to Dr. Rodabaugh by the town's volunteer firemen, and it is they who are enlarging it. The firemen are conducting a fund-raising drive to defray the costs of the improvements.

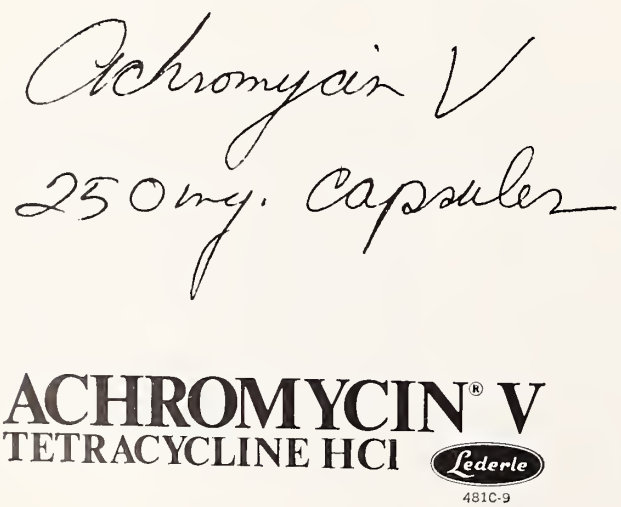
The "Anti-Smogs" conducted an anti-smoking clinic at Toledo on June 23 with the endorsements of the local cancer and heart organizations, the Tama County Medical Society and the Iowa Inter-Agency Council on Smoking and Health. The program consisted of a panel discussion in which the participants were **Drs. G. M. Dalbey,** of Traer, **A. J. Havlik,** of Tama, **R. W. Linthacum,** of Dysart, **Charles Maplethorpe, Jr.,** of Toledo, **L. G. Schaeferle,** of Gladbrook, and **Elizabeth Procter,** of the State Department of Health, Des Moines, chairman of the Inter-Agency Council.

Dr. J. L. Walker was elected president of the Jasper County Heart Association during a meeting held in June at the Skiff Memorial Hospital, Newton. **Dr. H. A. Van Hofwegen** was elected to a two-year term on the organization's board.

Dr. George J. Hegstrom, of Ames, was elected chairman of the advisory board for the Iowa Regional Medical (heart-stroke-cancer) Program, late in June, succeeding **Dr. Harry B. Weinberg,** of Davenport, who has been chairman for the past two years.

At a meeting of the Iowa Health Planning Council held in Des Moines on June 26, **Dr. H. L. Skinner,** of Carroll replied to statements that graduates of the U. of I. College of Medicine should somehow be required to return and practice in Iowa. The DAVENPORT DEMOCRAT for June 26 quoted him as saying, "The idea of putting strings on doctors horrifies me. Why, if my Ohio medical school had done that, I wouldn't be here now."

Dr. K. C. Pasi, who received his basic medical education in India and his surgical training in Great Britain, was scheduled to open a general practice at Chariton on July 1, according to the CHARITON HERALD-PATRIOT for June 19. He has been on the house staffs, successively, of hospitals in Minneapolis and in Concord, New Hampshire, since coming to this country. He and Mrs. Pasi have three daughters and a son.



Thomas Osten, son of **Dr. and Mrs. B. H. Osten,** of Northwood, received his M.D. degree at the University of Iowa on June 7. Previously he had graduated from the University of Dubuque. He is to intern at St. Mary's Hospital, Spokane.

Another physician's son who took his M.D. at the U. of I. this spring is **James W. Giles,** son of **Dr. and Mrs. F. E. Giles,** of Fort Dodge. The young man is interning in Portland, Oregon.

Mr. Philip C. Irwin, a former president of Equitable Life Insurance Company of Iowa and the recipient of the John F. Sanford Award for long-time service to Blue Shield, at the 1969 IMS annual meeting last April, died on June 18.

David Gauger, son of **Dr. and Mrs. J. W. Gauger,** of Early, was one of the physicians' sons who graduated from the U. of I. College of Medicine early in June. He will serve his internship at the University of Minnesota Hospital, in Minneapolis.

On June 13, **Dr. Clark N. Cooper,** a surgeon who retired last year and who returned recently from three months' duty with *S. S. Hope* in Ceylon, addressed the faculty, alumni and students at the Allen Memorial Hospital School of Nursing, in his former hometown, Waterloo, on his experiences with the hospital ship.

Dr. John Dickinson, who now heads the staff of the medical service at the Men's Reformatory in Anamosa, and is to be in charge of the maximum security mental hospital now under construction at Oakdale, has been quoted as saying that the staff of the new institution will be 14 or 15 below "absolute minimum" when the facility opens next fall. He made that statement during a conference that he held with Johnson County law officers, and the report in the IOWA CITY PRESS CITIZEN, for June 13, failed to make clear whether he was speaking of medical and paramedical personnel, or of guards, or of all three. The Iowa City police and the Johnson County sheriff, the article said, were not satisfied that the closed-circuit television surveillance would compensate for the shortage of guards because, they thought, the prisoners might succeed in covering the lenses of the television cameras. It is known, however, that Dr. Dickinson is seeking additional doctors for his staff.

Dr. C. A. Nicoll was honored at a reception held in the Methodist Church, in Panora, on Sunday afternoon June 29. He did his undergraduate college work at the University of Iowa and took his M.D. at the Northwestern University Medical School in 1926. He interned at Iowa Methodist Hospital, Des Moines, and practiced successively in Winterset and Linden before moving to Panora in 1932. He was away on military service for three years during World War II.

Dr. John H. Spencer has applied to the Muscatine Plan and Zoning Commission for a special permit to erect a clinic building on the west side of Cedar near Parham, there.

Dr. Anthony O. Colby, according to the June 20 edition of the PRESS-CITIZEN, has purchased the medical practice of **Dr. Richard G. Stuelke** at 2402 Towncrest Drive, Iowa City. A 1964 graduate of the U. of I. College of Medicine, he interned for two years at a Tacoma, Washington, hospital. While working on a master's degree in fiction-writing at the U. of I., this past year, he practiced medicine in Wellman, and more recently as an associate of Dr. Stuelke's. Originally he intended to take specialty training, but decided to remain in general practice after having had to treat a wide variety of ailments during a tour of duty in Vietnam. He has written two novels based partially on his experiences in Vietnam, and is working on one that is unrelated to the war. He is treasurer of the Johnson County Democratic Central Committee.

On June 20 the Hamilton County Hospital Board of Trustees announced the appointment of **Dr. W. B. Lewis**, of Webster City, to its membership, for a term extending through 1970. He retired from practice on February 1 of this year.

Dr. Jack D. Fickel, of Red Oak, was grand marshal of his town's centennial parade on July 4. Dr. Fickel is a member of the State Board of Public Instruction.

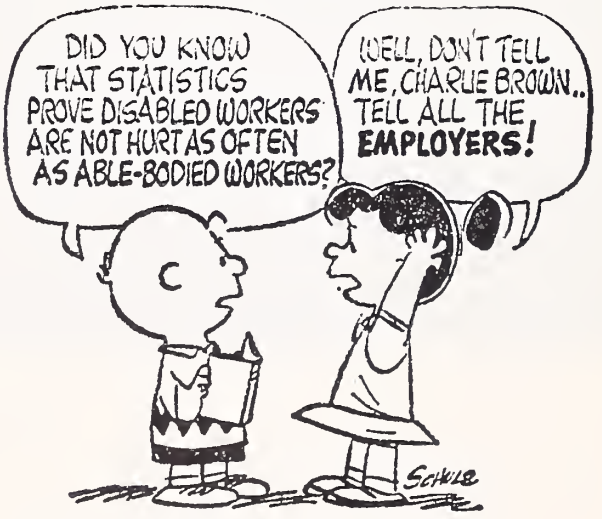
It was announced in mid-June that **Dr. K. Kalambaheti**, a surgeon, had joined **Dr. H. E. Stroy** in practice at Osceola. He is a graduate of the University of Medical Sciences in Bangkok, Thailand, and first came to the United States in 1959. He has worked at the Appalachian Regional Hospital, in Harlan, Kentucky, in Chicago and in Milwaukee. He and Mrs. Kalambaheti have two children.

Dr. E. D. Thompson addressed two recent meetings of the Civic and Industrial Bureaus of his town's Chamber of Commerce about the importance of constructing a medical arts center as one means of attracting additional doctors and dentists to Jefferson.

Dr. Conrad Larson, a 1952 graduate of Luther College who took his M.D. at the University of Michigan in 1961 and his training in pathology at Mercy Hospital, Toledo, Ohio, began practice in Decorah on July 1. He expects to serve the hospitals in Waukon and Cresco besides the one in Decorah. He spent two years in Army uniform after taking his B.A., and taught vocal music at the high school in Mora, Minnesota, in 1954-1955 before starting the study of medicine. Since becoming a specialist in 1966, he has been associated with the Munson Medical Center, in Traverse City, Michigan. He and Mrs. Larson have two children, a boy and a girl.

Dr. William M. Spear, superintendent of the Oakdale Hospital (formerly the State Tuberculosis Sanatorium), retired on July 1. His service there totaled 42 years, as surgeon, as assistant superintendent, and since 1942 as superintendent.

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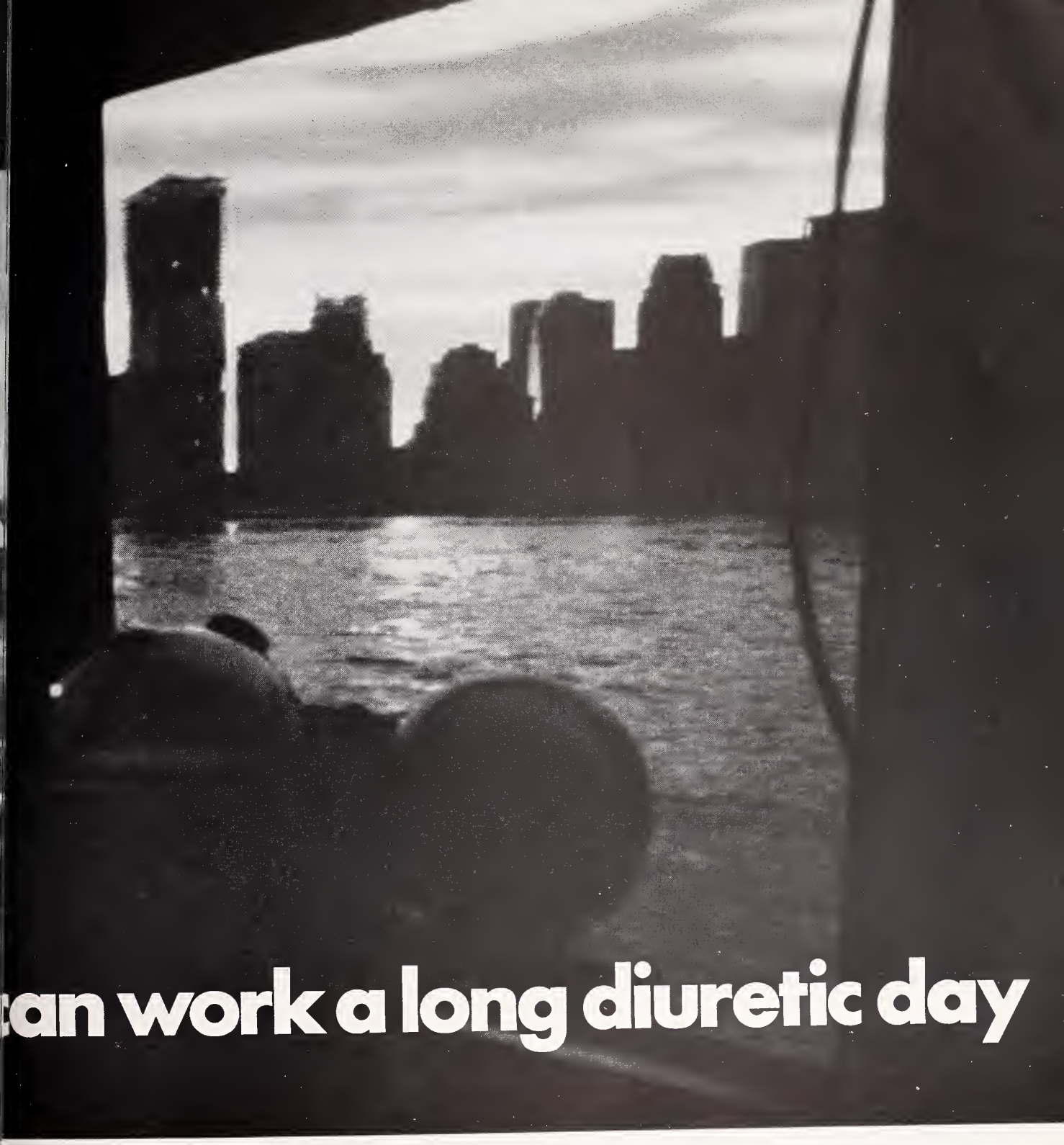
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Warning: With the administration of enteric-coated potassium supplements, which should be used only when adequate dietary supplementation is not practical, the possibility of small-bowel lesions (obstruction, hemorrhage, and perforation) should be kept in mind. Surgery for these lesions has been required frequently and deaths have occurred. Discontinue enteric-coated potassium supplements immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur.

Use with caution in pregnant women and nursing mothers since the drug may cross the placental barrier and appear in cord blood and since thiazides may appear in breast milk. The drug may result in fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult. When used in women of childbearing age, balance benefits of drug against possible hazards to fetus

Precautions: Antihypertensive therapy with this drug should always be initiated cautiously in postsympathectomy patients and in patients receiving ganglionic blocking agents, other potent antihypertensive drugs or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. Because of the possibility of progression of renal damage, periodic determination of the BUN is indicated. Discontinue if the BUN rises or liver dysfunction is aggravated. Hepatic coma may be precipitated.

Electrolyte imbalance, sodium and/or potassium depletion may occur. If potassium depletion should occur during therapy, the drug should be discontinued and potassium supplements given, provided the patient does not have marked oliguria.

Take special care in cirrhosis or severe ischemic heart disease and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended.

Adverse Reactions: Nausea, gastric irritation, vomiting, anorexia, constipation and cramping, dizziness, weakness, restlessness, hyperglycemia, glycosuria, hyperuricemia, headache, muscle cramps, orthostatic hypotension, which may be potentiated when chlorthalidone is combined with barbiturates, narcotics or alcohol, aplastic anemia, leukopenia, thrombocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin rashes, urticaria, purpura, necrotizing angiitis, acute gout, and pancreatitis when epigastric pain or unexplained G.I. symptoms develop after prolonged administration. Other reactions reported with this class of compounds include: jaundice, xanthopsia, paresthesia, and photosensitization.

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He will continue to have an office at the hospital as a professor emeritus of internal medicine. "It won't be like just walking out and not having anything to do but sit around or travel," he remarked. "I'll still have something to do to keep me busy."

Dr. Fred Abbo, of Cedar Rapids, presented a program on risk factors that determine susceptibility to heart disease at a public meeting in Central City late in June.

An extraordinary type of event was held at Yarmouth, on Sunday, July 13, in honor of **Dr. Nathan Campbell,** 85, who practiced 45 years in that community until a hip fracture in 1960 confined him to a wheelchair. It was a "tractor and mini-tractor pull," conducted at the airport south of the town. Entrants had to be residents of Henry, Louisa or Des Moines counties, and their machines had to be factory models and could weigh no more than 1,000 lbs. A mechanical sled was used.

Dr. John J. Shurts was installed on July 8 as president of the Eldora Rotary Club.

Dr. N. L. Saxton occupied his new office at 114 South A Street, in Oskaloosa, on July 1. The building, which formerly housed a cafe, had been thoroughly remodelled.

Dr. Donald J. Ahrenholz, a Cedar Falls surgeon, plans to work at the Eldora Community Hospital every Friday, and in emergencies as needed. **Dr. E. S. Brintnall,** of Iowa City, maintained a somewhat similar surgical schedule at the Eldora Hospital prior to suffering a coronary attack in June.

The Ottumwa Hospital School of Radiologic Technology graduated seven students at exercises conducted on June 25. Four of them have passed the National Registry Examination, and the other three will take it next November. Five new students began the 24-month course on Monday of that same week. The faculty consists of **Dr. R. A. Hastings, Dr. W. W. Ireland** and **Dr. John A. Dotterer.**

On July 1 **Dr. Larry G. Rigler** began general practice with **Drs. T. T. Bozek** and **Victor G. Edwards** at 821 East Jefferson Street, Iowa City. Dr. Rigler took his M.D. degree at the U. of I. College of Medicine in 1968, and just completed his internship at Broadlawns-Polk County Hospital, Des Moines. He has spent eight years as an officer in the U. S. Army Reserve.

Dr. John Murphy began general practice in Boone on July 1, after four years in Navy service. He has joined **Drs. R. L. Wicks, Wayne E. Rouse** and **John R. Anderson.**

Dr. B. Ferrell Peters, who recently completed his internship at the Cedar Rapids hospitals, is practicing at Reinbeck during July and August with **Dr. W. H. Verduyn,** while awaiting his call to military service. He served a preceptorship with Dr. Verduyn two or three years ago.

Dr. G. W. Marmé, of DeWitt, is to discontinue practice there on August 1, and to relocate in Ottawa, Ontario, on September 1. He has been in DeWitt for 20 years.

Dr. R. F. Beckman, of Mt. Vernon, served as *locum tenens* during the mid-part of July while **Dr. and Mrs. E. M. Eneboe,** of Hawarden, took a vacation. Dr. Beckman is a 1968 graduate of the U. of I. College of Medicine who interned at McKennan Hospital, Sioux Falls.

Dr. Kenneth A. Hubel, an associate professor of internal medicine at the U. of I. College of Medicine, has been awarded a one-year research fellowship at Oxford University, beginning in August, by the National Institute of Arthritis and Metabolic Diseases. He took his M.D. at Cornell University in 1954, got his specialty training at State University of New York Upstate Medical Center, and had a postdoctoral fellowship in the Department of Physiology at George Washington University, Washington, D. C., before joining the U. of I. faculty in 1962. His research has involved the secretion of water and electrolytes, the effect of drugs on pancreatic secretion, and the changes in intestinal function resulting from Asiatic cholera.

Dr. Stanley Haag, who just finished an internship at Iowa Lutheran Hospital, Des Moines, has joined **Dr. Russell Barrett** in general practice at Rockford. Though Dr. Barrett's hometown was Bloomington, California, and Dr. Haag's was Howard Lake, Minnesota, both went to medical school at Tulane University, in New Orleans, and both interned at Iowa Lutheran (Dr. Barrett in 1967-1968, and Dr. Haag in 1968-1969).

Though he will continue to practice in Rock Rapids, **Dr. Carl V. Griesy** has joined the Donohoe Clinic group, in Sioux Falls. Like Dr. Griesy, in Rock Rapids, there are staff members of the Clinic practicing in Luverne, Minnesota, and Lenox, South Dakota. It is a multi-specialty association consisting of 21 physicians.

Dr. David W. Murrell, president of the Rock Island County (Illinois) Medical Society, and **Dr. Erling Larson**, president of the Scott County (Iowa) Medical Society announced, jointly, on July 2 that the two organizations had hired an executive secretary to serve both of them, **Mr. James A. Koch.** Mr. Koch has taught college journalism and has been a television newscaster for several years. He makes his home in Rock Island.

The Mental Health Institute at Mt. Pleasant has three new psychiatrists. **Dr. Helen Halbert** came from Davenport, where she had a private practice. She took her M.D. at the Woman's Medical College, Philadelphia, got her psychiatric training at Iowa City and at the Seton Psychiatric Institute, in Baltimore. She was board-certified in April. **Dr. Rudolfo L. Aldana** came from Galesburg State Research Hospital, in Illinois. He took his basic medical education at the University of the Philippines and served an internship there. Before taking specialty training, he worked at hospitals in Ottawa, Ontario, and in New York, Missouri and Massachusetts. He served separate years of his residency at several different hospitals. **Dr. Upen Kharod** got his M.D. at the University of Gujarat, in India, and served an internship there. He completed his internship at the Glen Falls Hospital, in New York, and took his psychiatric residency in Philadelphia.

Dr. Robert C. Hardin, vice-president for medical affairs of the U. of I., was installed as president of the American Diabetes Association at the organization's annual meeting in New York City June 28-29. He was president-elect this past year. There are about 2,500 professional members.

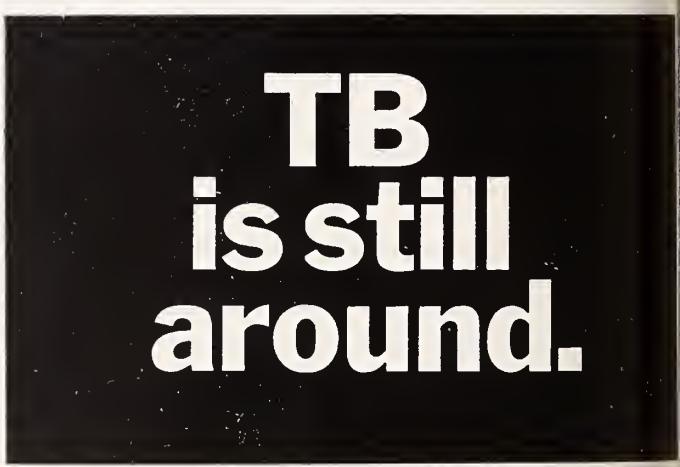
At the Central States Correctional Association's meeting in Des Moines May 25-28, **Dr. Douglas N. Johnson**, clinical director of the Security Medical Facility at the Men's Reformatory in Anamosa, spoke on the topic "The Sociopath: Is He Amenable to Treatment."

Dr. John Dickinson, head of the Security Medical Facility at the Men's Reformatory in Anamosa, served as chairman of a panel discussion on "Delinquency and 'Insanity'" at a meeting of the American Orthopsychiatric Association in New York City early in April.

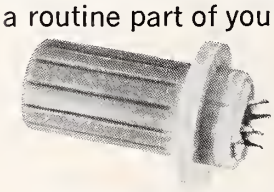
The June, 1969, issue of AMERICAN JOURNAL OF THE DISEASES OF CHILDREN contained an article by **Drs. David Silber** and **Robert Durnin,** assistant professors of pediatrics at the U. of I. College of Medicine, on "Intrauterine Atrial Tachycardia Associated With Massive Edema in a Newborn."

Dr. Samuel J. Fomon, a professor of pediatrics at the U. of I. College of Medicine, lectured on "Normal Growth and Failure to Thrive" at a pediatric nutrition conference sponsored by the Division of Child Health of the Department of Health and Welfare of the State of Maine, in Portland on June 11.

Dr. Paul L. Rohlf is to join Urological Associates, Davenport, on August 1. He is a 1962 graduate of the U. of I. College of Medicine, he interned at Philadelphia General Hospital, he served in the



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Contraindications: Hypersensitivity to any component.

Warning: In renal impairment, since liver toxicity is possible, lower doses are indicated; during prolonged therapy consider serum level determinations. Photodynamic reaction to sunlight may occur in hypersensitive persons. Photosensitive individuals should avoid exposure; discontinue treatment if skin discomfort occurs.

Precautions: Drowsiness, anorexia, slight gastric distress can occur. In excessive drowsiness, consider longer dosage intervals. Persons on full dosage should not operate vehicles. Nonsusceptible organisms may overgrow; treat superinfection appropriately. Treat beta-hemolytic streptococcal infections at least 10 days to help prevent rheumatic fever or acute glomerulonephritis. Tetracycline may form a stable calcium complex in bone-forming tissue and may cause dental staining during tooth development (last half of pregnancy, neonatal period, infancy, early childhood).

Adverse Reactions: *Gastrointestinal*—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. *Skin*—maculopapular and erythematous rashes; exfoliative dermatitis; photosensitivity; onycholysis, nail discoloration. *Kidney*—dose-related rise in BUN. *Hypersensitivity* reactions—urticaria, angioneurotic edema, anaphylaxis. *Intracranial*—bulging fontanels in young infants. *Teeth*—yellow-brown staining; enamel hypoplasia. *Blood*—anemia, thrombocytopenic purpura, neutropenia, eosinophilia. *Liver*—cholestasis at high dosage.

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Air Force from 1964 to 1966, and he has been a urology resident since then at University Hospitals, Iowa City. The physicians who previously have made up the staff of Urological Associates are **Dr. Alex W. Boone, Dr. John H. Smith** and **Dr. James W. Holte.**

Dr. George B. Theil, an associate professor of internal medicine, is to head the U. of I. kidney-transplant team that will perform its first operation this fall, according to an article in the July 4 issue of the DAVENPORT DEMOCRAT. Other members are **Dr. Walter M. Kirkendall,** director of the Cardiovascular Laboratory; **Dr. John S. Thompson,** a specialist in immunology; **Dr. William W. Bonney,** a transplant surgeon; **Dr. Richard L. Lawton,** director of the dialysis unit at the Iowa City VA Hospital; and **Dr. Richard M. Freeman,** director of the dialysis program there.

Physicians who routinely examine patients for open-angle glaucoma, a destructive eye disease which causes blindness, will catch all early cases only if they test for visual-field defects, rather than for increased pressure inside the eyeball, according to **Mansour F. Armaly, M.D.,** a professor of ophthalmology at the U. of I. College of Medicine. "In 1958," he says, "we began two population studies of the three factors used to diagnose glaucoma—increased intraocular pressure, loss of visual field, and excavation (cupping) and atrophy of the optic nerve head. We found that a large number of people have intraocular pressures above the level considered normal but develop no signs of glaucoma. Also, we found that elevated intraocular pressure and the ratio of the width of the cup of the optic disc to the width of the entire disc (the cup/disc ratio) are inherited."

One study was in Kalona, a community of 1,200 persons southwest of Iowa City, and the other was in Des Moines, a city of 225,000 persons. They showed (1) that the elevated cup/disc ratios are caused by more than one gene; (2) the combination of high intraocular pressure and large optic disc cup suggests an increased vulnerability to glaucoma; and (3) visual-field defects can be detected before there is an increase in intraocular pressure.

Dr. Armaly exhibited his findings at the AMA Annual Meeting in New York City.

The Iowa Lions Clubs have contributed $18,050 to the U. of I. Department of Ophthalmology for research on corneal diseases and for the purchase of instruments for corneal-transplant operations. **Dr. Frederick C. Blodi,** head of the Department, says that Lions Club members have supported the Iowa Lions Eye Bank at University Hospitals since its beginning in 1955. A total of 515 corneal-transplant operations have now been performed at the U. of I with eyes that were pledged to the bank. In addition, the Lions have supported the U. of I. glaucoma screening program, have provided typewriters to all blind Iowa high school graduates, have purchased transcribers and Braille typewriters for use by the Iowa prison volunteers who make "talking books," and have helped finance the Leader Dog Program, the Iowa Commission for the Blind and the Iowa Society for the Prevention of Blindness.

Dr. David A. Culp, professor of urology at the University of Iowa, presented the chairman's address of the AMA Urology Section at the group's annual meeting held in New York City July 13-17. His topic was "Urologic Care of the Meningomyelocele Patient." The disorder is a hernial protrusion of a part of the spinal cord and its membranes. Dr. Culp has been an officer of the AMA Urology Section for several years. He is a member of the American Association of Genito-Urinary Surgeons and the Clinical Society of Genito-Urinary Surgeons. Both groups are limited to specialists who have made outstanding contributions in the field of urology.

Dr. Samuel Fomon, a professor of pediatrics at the U. of I. College of Medicine, criticized prepared baby foods in testimony before a Select Committee on Nutrition, of the U. S. Senate, in Washington, D. C., during mid-July. He urged that the addition of salt and monosodium glutamate to such



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foods be discontinued; he asked for a requirement that labels of strained or junior foods contain statements regarding total calories, protein, iron and sodium; and he pointed out that 20 to 33 per cent of the children of disadvantaged families suffer from iron-deficiency anemia which can best be met by feeding them iron-fortified foods.

Dr. and Mrs. John R. Jaquis and their family left Cedar Falls on July 18 for Pakistan, where Dr. Jaquis will work for a year in a mission hospital.

Dr. Burton Stone, a Burlington physiatrist, and **Dr. James R. Taylor,** a resident in neurology at the University of Iowa Hospitals, gave 10 nurses a two-week short course in stroke rehabilitation, beginning on June 23, at Klein Memorial Hospital, Burlington.

Dr. Harry B. Weinberg, who has practiced internal medicine in Davenport since 1940, has moved to Iowa City to become a clinical professor of internal medicine at the University of Iowa and director of the Iowa Regional Medical (heart disease, cancer and stroke) Program. **Dr. W. A. Krehl** is the IRMP coordinator.

DEATHS

Dr. Roland W. Stahr, 68, a pediatrician who practiced in Fort Dodge from 1928 through 1939, and thereafter in Reno, Nevada, until he retired a year ago, died on June 21 at his summer home in Fort Dodge. He was a medical graduate of Washington University, St. Louis, and served both his internship and his residency at St. Louis hospitals. While in Nevada he served as an AMA delegate, and he served a year as president of the Nevada State Medical Society.

Dr. Julian E. McFarland, 66, who founded the McFarland Clinic, in Ames, in 1939, together with his father and one of his brothers, died at his home in Ames on June 27. He retired from medical practice several years ago because of crippling arthritis.

Dr. Lawrence Desmond Colbert, 52, who had practiced at Royal for 22 years, died at Methodist Hospital, Rochester, Minnesota, on June 29 after a long illness. He was a 1942 graduate of Creighton University Medical School, and served four years in the Army during World War II.

Dr. Harry R. Jenkinson, 78, of Iowa City, a Life Member of the Iowa Medical Society, died of an apparent heart attack on Sunday, July 13. He was working in his Iowa City office when his seizure occurred. His home was outside of town, on Lake Macbride.

Digestive Disease Problems

Compared with the enormity of the problem posed by digestive diseases, the supply of medical manpower in the field is alarmingly small, says Dr. James A. Clifton, head of the Division of Gastroenterology at The University of Iowa. Digestive diseases are the leading cause of hospitalization in the general population, produce more days of hospital stay than illnesses of any other body system, are the second major cause of days lost from work, and are the third leading cause of death, according to one study.

A survey made by Dr. Clifton revealed that there were only some 1,550 practicing physicians in the nation who expressed a special interest in digestive diseases—about one for every 120,000 citizens. Twenty-four of the 50 states have fewer than 10 physicians with a special interest in digestive diseases, and four states—Alaska, Nevada, South Dakota, and Wyoming—have none. Iowa, with a population of about 2.8 million, has five specialists in gastroenterology, or one specialist for every 560,000 persons. Iowa's five specialists practice in Iowa City and Des Moines.

Findings of Dr. Clifton's survey are included in a report on the national problem of digestive diseases in the first issue of a new publication VIEWPOINTS ON DIGESTIVE DISEASES. The publication is sponsored by the American Gastroenterological Association (AGA) and the Digestive Disease Foundation. Dr. Clifton, who is vice chairman of the U. of I. Department of Internal Medicine, recently was named president-elect of the AGA. He has headed the U. of I. training program for specialists in gastroenterology since 1963.

Following are digestive disease problems cited by the publication as needing increased research attention. (1) Cancer of the gastrointestinal tract accounts for almost one-third of all deaths from malignancies. Cancer of the large bowel ranks a close second to cancer of the lung as a cause of death by cancer. (2) Gallstones, a common cause of disability and death, are said to occur in 15 per cent of persons who are 55 to 64 years old. (3) About one-tenth of the people in the nation are known to have peptic ulcer. It has been estimated that peptic ulcer costs the nation $1 billion annually for medical care and loss of productivity from disability and death. (4) Cirrhosis of the liver causes more than 23,000 deaths annually in the United States, and it is the third leading cause of death among men in their fifties.

The Digestive Disease Foundation is now being expanded to promote public support for research and education, to establish standards and improve facilities for patient care, and to facilitate both professional and public education in the general field of digestive diseases.

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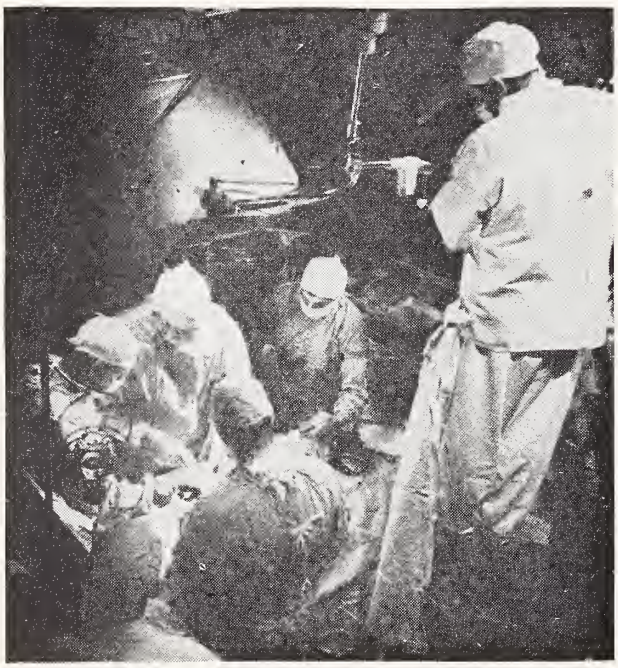
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Peer Review: A Vital Mechanism

While *peer review* has been in the lexicon of the medical profession for a long time, the term has had only limited public exposure—until recent days. Now, with extensive discussion of the Iowa Medicaid program going on, the phrase has come into real prominence.

This newly achieved prominence is likely to be salutary, however, for public recognition and understanding of peer review are highly desirable. Peer review is a concept or a mechanism which, in the judgment of the Iowa Medical Society constitutes the best means of assuring fiscal soundness and integrity for health-care programs such as Medicaid. Peer review calls the medical profession into action when the reasonableness of a physician's charge has been questioned, or when the extent and appropriateness of the medical services rendered to the patient need evaluation.

To its credit, the Iowa State Department of Social Services has concurred with the IMS and others of the vendor groups as to the worth of peer review. Because the Department has shared this opinion (and because it wishes to utilize peer review in relation to Title XIX), it has elected to delay public release of the much-discussed list of total Medicaid payments until the vendor organizations have had an opportunity to evaluate the data and to report their findings. This evaluation is now in process.

While retaining the list, the Department has had to withstand considerable pressure. In a July 22 statement which attempted to explain the logic in temporarily withholding the names and amounts, Social Services Commissioner Maurice Harmon declared:

"The U. S. Department of Health, Education and Welfare required every state having a Medicaid program to conduct utilization review. Nationwide, the establishment of a utilization review [program] has become a major problem beset with many ineffective procedures. In studying this problem for the past several months, the Iowa Department of Social Services has moved toward the use of the peer review system in order to reach an effective utilization.

"This involves a close working relationship with vendor organizations in order to examine and research all data and records to determine what and how much overutilization exists—if, indeed, any does exist. . . .

"Thousands of man hours have been spent by this Department and representatives of vendor groups in working toward an efficient and meaningful [peer review] system. The cooperation of the vendor groups has been superb, and if this Department risks the loss of the cooperation of the vendor groups and the peer review system, it will mean the expense to the State of Iowa of several thousands of dollars, and it will then be necessary to establish its own utilization review without the assistance of vendor organizations. . . .

"The premature publishing of names will jeopardize the entire program of peer review. . . . Iowa is ahead of most states in the nation by our present implementation of this type of review.

Consequently, we do not choose to jeopardize this system by a release of names and payments that are not complete, and it would only serve to break down our present working relationships and to destroy our present order of communications with these well recognized professional groups."

These excerpts from the July 22 statement of the Commissioner of Social Services provide some insight into the thinking which led to the temporary withholding of the admittedly incomplete vendor-payment data. It is the belief of the IMS officers that the Commissioner and his associates have exercised sound judgment in taking this action.

Belief in the potential of peer review has been affirmed and reaffirmed at several levels in recent weeks. Much time is now being devoted—here in Iowa and elsewhere—to devising sound procedures for conducting peer review. This development of procedures undoubtedly will continue for some time.

The AMA House of Delegates, which has just met in New York City, emphasized that there is "no greater challenge facing the profession today than to secure universal acceptance and application of the [peer] review concept as the most meaningful method for (1) creating a public awareness of medicine's efforts to assure high quality of health services at a reasonable cost, (2) slowing the rate of escalation in health-care charges, (3) stimulating health insurance organizations to make broader protection available to more people, and (4) retaining professional control in patient-physician fiscal and economic relationships."

Similarly, the Executive Council of the Iowa Medical Society, at its July 2 meeting, in approving an extension of the Society's existing peer review program, endorsed a statement stressing the importance of this activity: " . . . The Iowa Medical Society has devoted much of its recent effort and expertise to building a program which seeks to protect against any intentional or unintentional abuse associated with the delivery of health care. The Society has constructed a statewide review system to investigate and make strong recommendations in cases where overutilization or overcharging are suspected and reported to the Society. This peer review concept has been used to excellent advantage in resolving questions which have arisen in a variety of third-party programs. We believe strongly that the broad application of this professional peer review system will do more than any other single thing to maintain the fiscal soundness and assure the success of Medicaid. We recognize and accept the challenge inherent in a program such as this.

" . . . The Iowa Medical Society stands ready and willing to make available its expertise and its manpower to structure an Iowa Medicaid program which will be fiscally sound and which will serve the health-care needs of those for whom it is intended. In situations where questions are raised as to the propriety of a physician's charge or his mode of practice, the Society is unequivocally dedicated to clearing and protecting the innocent and to identifying the guilty. It is the strong feeling of the Iowa Medical Society that to make the Medicaid program workable and solvent, all possible reliance should be placed in those local practitioners who provide services and in the professional bodies of which they are a part."

The Society is putting these words into action even as this is written. District review committees, approved by the IMS Executive Council on July 2, are now being constituted. This important broadening of the Society's professional review apparatus provides for the creation of 11 district review committees. Seven physicians have been invited to serve on each of them. Their important first assignment will be to review and report on the physicians in their respective geographical areas whose Medicaid payments have surpassed the initial evaluation level.

To these committees will be entrusted responsibility for evaluating matters relating not only to Medicaid but to other health-care programs as well—matters which only a physician has the competence to judge. The physicians who serve on these committees will perform a most important task on behalf of the profession. They deserve cooperation, understanding and time, if they are to prove their mettle.

JOURNAL of The IOWA MEDICAL SOCIETY

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- Kidney Transplantation in Iowa—William W. Bonney, M.D.
- Genetic Counseling in Medical Practice: Part II—Hans Zellweger, M.D.
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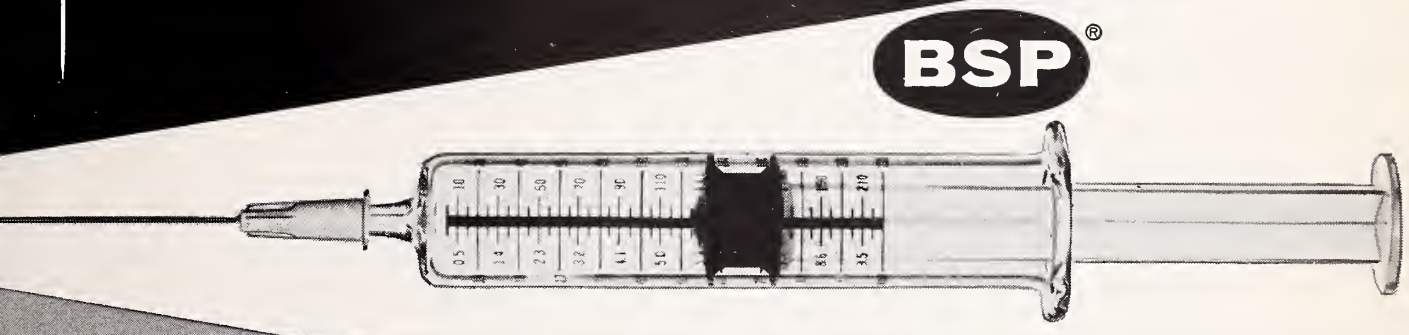
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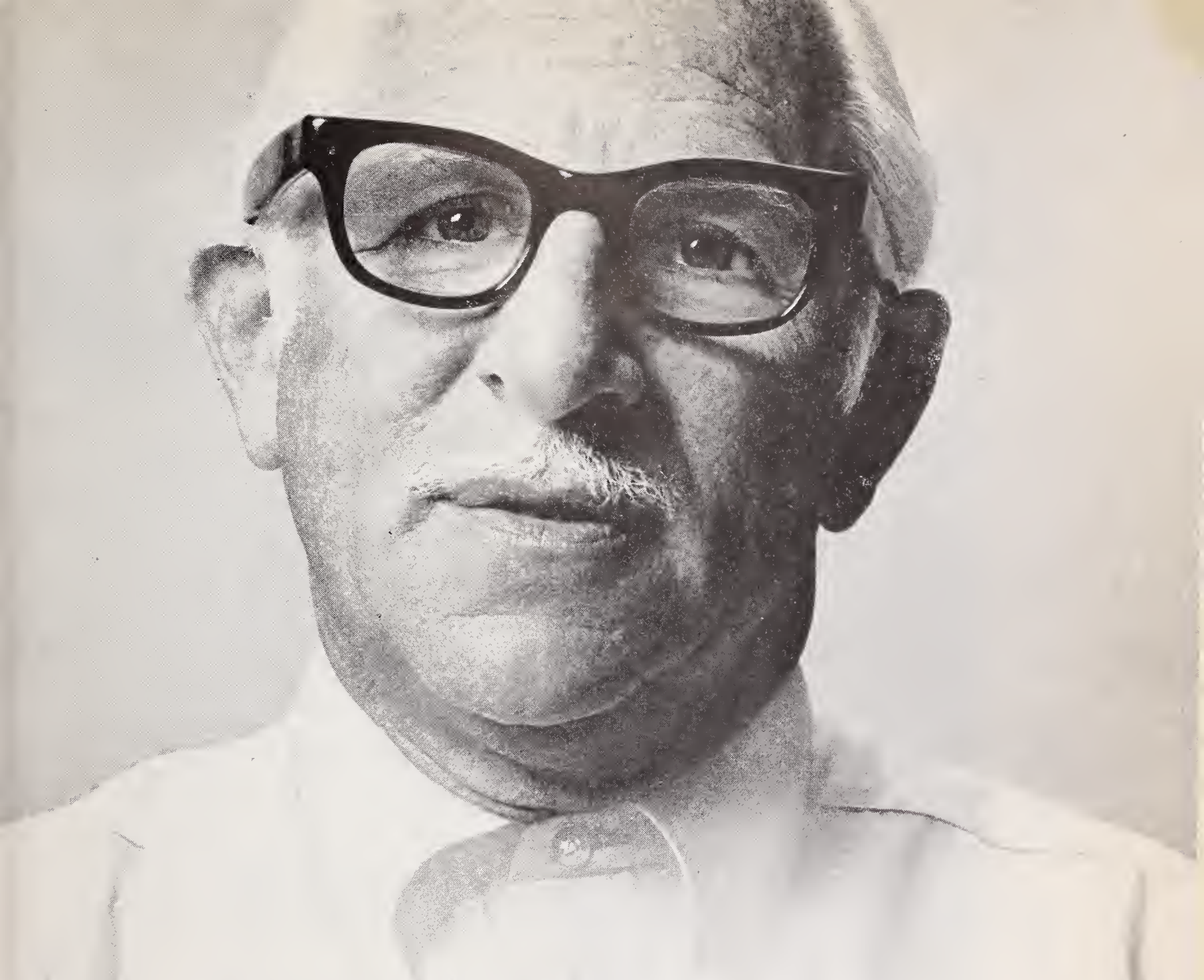
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The Month in Washington

Washington, D. C.—The American Medical Association questioned whether the Department of Health, Education and Welfare has the authority to issue its recent regulation limiting physicians' fees under Medicaid. "We question whether the authority granted by the Congress embraces the promulgation of this regulation," Dr. Ernest B. Howard, executive vice-president of the AMA, said in a letter to HEW. "This regulation appears to reverse the roles of state and federal governments established in the law itself."

The regulation limits most physicians' fees to the 75th percentile of the customary charge—the maximum customary fee of 75 per cent of the physicians in the area.

After offering HEW the AMA's cooperation in its efforts to contain rising Medicaid costs, Dr. Howard pointed out that the "comprehensive" care goal of the program could not be achieved "without substantial funding, both state and federal."

"Moreover, it has always been recognized that the intent of Title XIX (Medicaid), when adopted, was to dissolve any barriers which existed between medical care available to the medically-indigent and to other citizens," the AMA statement said.

"It also recognized that payment to physicians participating in the government program should be on the basis of reasonable charges, i.e., usual charges of the physician within the customary range of charges for similar services in the community, so as to assure a broad range of participation by physicians in the program and eliminate one of the obstacles to the care of patients on the same level as that provided to other persons in the community. This was essentially the approach taken in the January 25, 1969, regulations concerning "reasonable charges," in which "customary charges which are reasonable" was established as the upper limit for payment for non-institutional services. We believe that the January 25 pronouncement more accurately comports with the Congressional intent expressed in Section 1903(a)(30) of the Medicaid law, than does the new regulation. . . .

It should be recognized that "in departing from this earlier standard, by establishing arbitrary limits on payments to individual practitioners, the July 1 regulations may again raise a barrier to providing private care to the medically indigent.

"There can be no question that any fee abuses in the program, whether by individual practitioners or other providers, must be ferreted out and eliminated. On the other hand, the true effect of the proposed regulations must be kept in proper perspective, since physicians' fees represent only approximately 11 per cent of the costs of the Medicaid program. Consequently, if the basic concern is with the total costs of the program, the remedy in our opinion, is not through regulations which restrict physicians' charges."

On the Congressional front, the Medicaid law was amended to give the states some relief in fiscal difficulties arising from the program. States now have until July 1, 1977, to submit comprehensive plans of medical care for all needy persons under Medicaid. Under the original Medicaid law, participating states had to come up with such a plan by July 1, 1975. But rising health care costs resulted in Medicaid fiscal difficulties for so many states that Congress delayed the deadline for two years and relaxed other requirements to ease the financial bind.

Rep. Wilbur D. Mills (D., Ark.), chairman of the House Ways and Means Committee, said the changes in the law should give states some financial relief and also give Congress time to consider what long-range revisions are desirable in Medicaid.

* * *

President Nixon said the nation will be confronted with a "massive" crisis in health care unless government and the private sector cooperate to hold down costs and to improve the system of delivery of medical services. He made the statement in commenting on the Health, Education and Welfare Department's "Report on the Health of the Nation's Health Care System." It carried the names of both HEW Secretary Robert H. Finch and HEW Assistant Secretary for Health and Scientific Affairs Roger O. Egeberg, M.D.

"This nation is faced with a breakdown in the delivery of health care unless immediate concerted action is taken by government and the private sector," the report said. "Expansion of private and public financing for health services has created a demand for services far in excess of the capacity of our health system to respond. The result is a crippling inflation in medical costs causing vast increases in government health expenditures for little return, raising private health insurance premiums and reducing the purchasing power of the health dollar of our citizens."

The report called the Medicaid program—"badly conceived and badly organized," and said it was a major factor in rapidly rising health care costs in that it attempts "to provide medical services for the poor by pushing them into the nation's already overburdened health care system without developing the capacity in the system to serve

them, and without building the capability in the states to manage the program."

The report also said that overtaxed health resources are being used wastefully and are not being expanded rapidly enough. Not enough attention, furthermore, is being given to preventive health care, the report said.

Two advisory groups were set up: a HEW Secretary's Task Force on Medicaid and Related Programs under co-chairmen HEW Undersecretary John G. Veneman and Walter J. McNerney, president of Blue Cross, and a special industry group with David J. Mahoney, president of Norton Simon, Inc., as chairman.

Dwight L. Wilbur, M.D., then president of the American Medical Association, congratulated the Nixon Administration for taking "such a thoughtful look at the accumulated problems that have been built up in the past as a result of hurriedly enacted programs, the buildup of unattainable expectations and the creation of unsound administrative operations."

"Correcting the consequences of massive disruptions and past political errors will call for the cooperation and dedication in the government and private sectors," Dr. Wilbur said. "This includes physicians, other professionals, many in related fields, hospitals, government, insurance payors and many others."

Dr. Wilbur also welcomed a call issued by Secretary Finch and Dr. Egeberg for discipline, through the profession itself, of "the very few members of the medical profession who have reportedly abused the (Medicare and Medicaid) programs."

* * *

Recent testimony by AMA witnesses before Congressional committees included:

—Dr. O. L. Simenstad, member of the AMA Board of Trustees, before the Senate Monopoly (Nelson) Subcommittee: "The advertising policies of the AMA have recognized consistently the uniqueness of drug advertising in that it should not be directed to the public, but to physicians, and that because of the public interests involved, it should be responsibly presented. As the drug products in this country have become more sophisticated, the Association's advertising policies have undergone evolution. Initially, an 'ethical' manufacturer was required to disclose the formulae of his advertised products. 'Secret nostrums' could not be advertised in responsible medical journals such as JAMA. Today, honest presentation of claims is the primary criterion. . . .

"The policy of the AMA has been to update the advertising standards as the drug field has changed. Two of the basic tenets have remained unchanged, however. One is that 'the appearance of advertising in AMA publications is not an AMA guarantee or endorsement of the product or the claims made for the product by the manufacturer'; and the other is that advertising space will not be sold unless 'the inclusion of advertising material does not interfere with the purpose of the publication.' "

—Dr. Pierre Salmon, member of the AMA Committee on Aging, before the Senate Long-Term Care Subcommittee: "We believe that the medical profession should take the lead in organizing 'community coordinating committees' to assume overall responsibility in coordinating available health facility services in the community. We have suggested that local medical societies invite representatives of the other health agencies and professions in the area to discuss and consider jointly the community's particular problems with regard to long-term care—both convalescent and custodial care. Some local medical societies have taken this initiative."

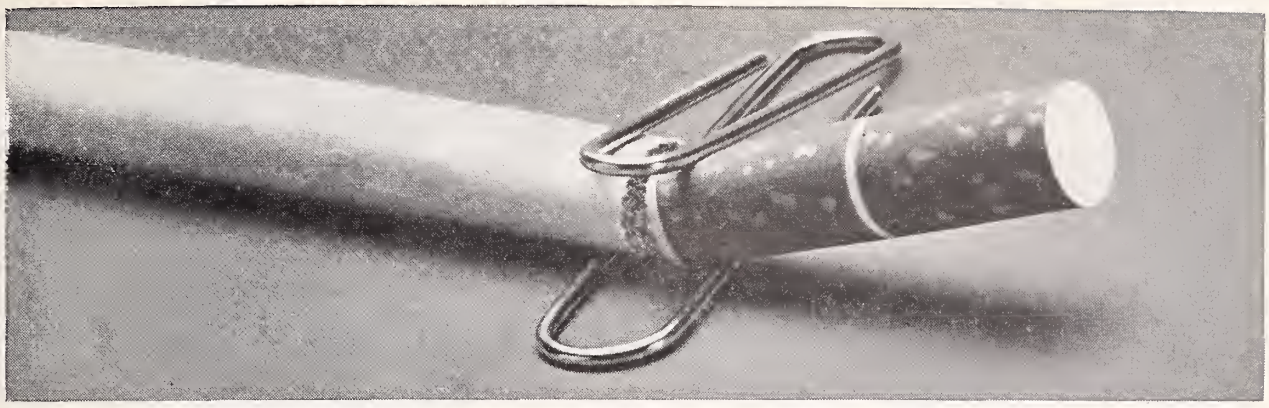
—Dr. Frederick C. Swartz, chairman of the AMA Committee on Aging, before the Senate Subcommittee on Health of the Elderly: "Age is no bar to good medical or surgical treatment, including open heart surgery, so long as the patient presents himself to the physician as a reasonably physiologically functioning unit.

"The medical and paramedical services—the physician and the para-physician personnel—must begin to realize that something can be done for diseases found among the oldsters. The days of condescension medicine to 'grandpap' and 'grandma' is at an end."

—Philip L. White, secretary of the AMA Council on Foods and Nutrition, before the Senate Committee on Nutrition and Human Needs: ". . . the United States needs to develop a national nutrition policy. . . . The development of goals in food production and distribution, the establishment of adequate levels of nutrient intake for individuals and groups of people, plans for the nourishment of our future expanded populations are but a few of the issues which require national attention."

—Dr. Henry Brill, chairman of the AMA Committee on Alcoholism and Drug Dependence, before the House Education Subcommittee: "In the course of the AMA's work in this field, we have been profoundly impressed by the fundamental importance of public education about narcotic, depressant and stimulant drugs. In the first instance, of course, public information has a decisive impact on public attitudes and opinions, and in the long run this determines public policy. If drug-taking for pleasure should ever become socially acceptable in this country and accepted as a harmless pastime, one could confidently predict that control of drug dependence would become impossible."

—Dr. Marvin A. Block, a member of the AMA Committee on Alcohol and Drug Dependence, before the Senate Subcommittee on Alcoholism and Narcotics: ". . . The crying need, aside from that of research and education, is for community facilities to treat and care for the alcoholic patient, who is entitled to the same rights and opportunities for treatment accorded other sick people."



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COMING MEETINGS

IN STATE

Sept. 10-11 **Conference on Pediatrics and Fall Meeting of Iowa Chapter, American Academy of Pediatrics,** Memorial Union, Iowa City.

Sept. 19-20 **Iowa Ophthalmological and Otolaryngological Society,** Ramada Inn, Iowa City.

Sept. 19-20 **Symposium on Cardiovascular Disease sponsored by Iowa Heart Association in cooperation with Great Plains Heart Association, Council on Clinical Cardiology and American Heart Association,** University of Iowa College of Medicine, Iowa City.

Sept. 22-23 **Eleventh Annual Midwest Interprofessional Seminar on Diseases Common to Animals and Man,** Iowa State University, Ames.

CONTINENTAL U. S.

Sept. 2-6 **International Tuberculosis Conference (20th),** Waldorf-Astoria, New York.

Sept. 4-6 **Scoliosis Research Society,** Disneyland Hotel, Los Angeles.

Sept. 4-6 **American Association of Obstetricians and Gynecologists,** Homestead, Hot Springs, Virginia.

Sept. 5-7 **Tenth Annual Cardiovascular Symposium of Tidewater Heart Association,** Williamsburg Lodge and Conference Center, Williamsburg, Virginia.

Sept. 9-12 **Utah State Medical Association,** Salt Palace, Salt Lake City.

Sept. 10-12 **Montana Medical Association,** Finlen Hotel, Butte.

Sept. 11-13 **Postgraduate Course on Myocardial Infarction sponsored by American College of Chest Physicians,** Dallas.

Sept. 11-13 **Regional Scientific Session of Wisconsin Society of Internal Medicine sponsored by American College of Physicians,** Deer Park Lodge, Manitowish Waters, Wisconsin.

Sept. 14-17 **Washington State Medical Association,** Olympic Hotel, Seattle.

Sept. 14-18 **Scientific Seminar on Drug Therapy sponsored by Pennsylvania Medical Society,** Host Farm Resort Motel, Lancaster.

Sept. 14-20 **American Society of Clinical Pathologists,** Palmer House, Chicago.

Sept. 15-16 **29th Annual AMA Congress on Occupational Health,** Stouffer's Riverfront Inn, St. Louis.

Sept. 16-20 **Congress of Neurological Surgeons,** Sheraton-Boston Hotel, Boston.

Sept. 17-19 **Postgraduate Course on Immediate Care of Sick and Injured sponsored by University of Nebraska Medical Center,** Nebraska Center, Lincoln.

Sept. 17-20 **Colorado Medical Society,** Broadmoor Hotel, Colorado Springs.

Sept. 19-20 **Delivery of Health Care to Children (American Academy of Pediatrics),** Tan-Tar-A Resort, Lake of the Ozarks, Missouri.

Sept. 19-20 **National Conference on Stroke sponsored by American Rehabilitation Foundation,** Pick-Nicollet Hotel, Minneapolis.

Sept. 19-20 **Postgraduate Course on Advances in Management of Heart Disease.** University of Wisconsin Medical Center, Madison.

Sept. 20-27 **Joint Meeting, Ninth International Congress of Neurology and Fourth International Congress of Neurological Surgery,** New York.

Sept. 21-24 **American Association of Medical Clinics,** Americana Hotel, New York.

Sept. 23-25 **Kentucky Medical Association,** Kentucky Hotel, Louisville.

Sept. 23-27 **Oregon Medical Association,** Portland.

Sept. 24-27 **Nevada State Medical Association,** Hotel Nevada, Ely.

Sept. 25-29 **Workshop on Clinical Hypnosis and Psychotherapy sponsored by American Society of Clinical Hypnosis-Education and Research Foundation and the Department of Neurology and Psychiatry of the University of Minnesota, Pick-Nicollet Hotel,** Minneapolis.

Sept. 26-Oct. 3 **American Academy of General Practice,** Philadelphia.

Sept. 28-Oct. 2 **Western Orthopaedic Association,** Broadmoor Hotel, Colorado Springs.

Sept. 28-Oct. 3 **Michigan State Medical Society,** Sheraton-Cadillac, Detroit.

Sept. 29-Oct. 3 **Hospital Medical Staff Conference sponsored by University of Colorado School of Medicine,** YMCA Conference Center, Estes Park.

Oct. 1 **Acute Myocardial Infarction (Wisconsin State Heart Association and Adolph Gundersen Medical Foundation),** Valhalla Hall, Wisconsin State University at La Crosse.

Oct. 1-4 **Postgraduate Course on Vascular Disease sponsored by American College of Physicians and Mayo Graduate School of Medicine,** Clinic's Medical Sciences Bldg., Rochester.

Oct. 2-4 **American Association for Surgery of Trama,** Benson Hotel, Portland, Oregon.

Oct. 6-10 **Postgraduate Course on High Risk Infant Care (Limited) sponsored by University of Colorado School of Medicine,** Denver.

Oct. 6-10 **American College of Surgeons, Annual Meeting,** Fairmont Hotel, San Francisco.

Oct. 8-11 **Medical Oncology Today—An Internist's Guide to Cancer Chemotherapy sponsored by American College of Physicians,** University of Minnesota Medical School, Minneapolis.

Oct. 8-12 **Pennsylvania Medical Society,** Marriott Motor Hotel, Philadelphia.

Oct. 12-16 **American Society of Plastic and Reconstructive Surgeons,** Chase-Park Plaza, St. Louis.

Oct. 12-17 **American Academy of Ophthalmology and Otolaryngology,** Palmer House, Chicago.

Oct. 13-16 **Indiana State Medical Association,** Columbia Club, Indianapolis.

Oct. 13-24 **Clinical Management and Control of Tuberculosis,** National Jewish Hospital, Denver.

Oct. 14-22 **Eleventh Congress of Pan-Pacific Surgical Association,** Honolulu.

Oct. 15 **5th Annual Symposium on Recent Adcances in Renal Disease presented by Kidney Foundation of Illinois, Inc.,** Grand Ballroom, La-Salle Hotel, Chicago.

Oct. 16-18 **Central Association of Obstetricians and Gynecologists,** Sheraton-Peabody Hotel, Memphis.

Oct. 17-18 **Bryan Days, Selected Problems of GI Tract sponsored by University of Nebraska Medical Center,** Bryan Memorial Hospital, Lincoln.

Oct. 18-23 **38th Annual Meeting of American Academy of Pediatrics,** Palmer House, Chicago.

Oct. 19-22 **American College of Gastroenterology,** Rice Hotel, Houston.

Oct. 22-24 **16th Western Cardiac Conference,** University of Colorado Medical Center, Denison Auditorium, Denver.

(Continued on page 843)



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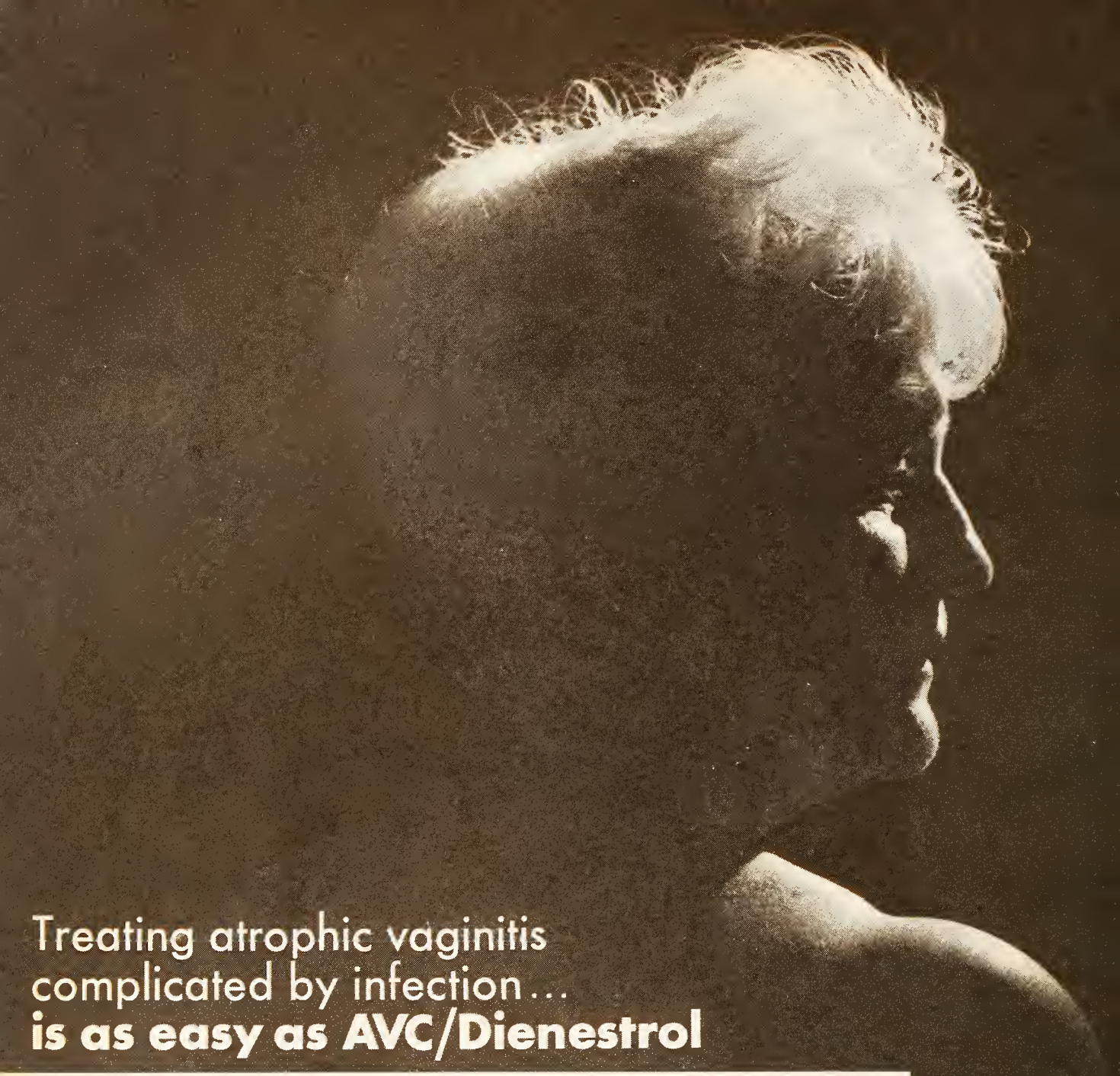
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References: (1) Salerno, L. J.; Ortiz, G., and Turkel, V.: Vaginitis: A Diagnostic and Therapeutic Approach, Scientific Exhibit, presented at the 115th Annual A.M.A. Convention, Chicago, Illinois, June 1966. (2) Nugent, F. B., and Myers, J. E.: Pennsylvania Med. 69:44, 1966.

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Is This Any Way to Run a Regional Medical Program?

CHARLES W. CALDWELL
Iowa City

The Iowa Regional Medical Program—to the dismay of some, but to the joy of most—has acquired a reputation for "telling it like it is." Unlike what people too often have come to expect of the typical tax-supported organization, it has made no effort to cover up its mistakes or to veil itself in a maze of bureaucratic gobbledegook. This article is an attempt to continue in that vein, dwelling on our problems as well as on our solutions, on our failures as well as on our achievements, on our concerns as well as on our hopes.

The Iowa Regional Medical Program has been operational for one year. The development of the Program has involved many frustrations and some disappointments. The difficulty in recruiting qualified personnel was a predictable but frustrating and delaying factor. The sometimes slow and difficult task of obtaining representative decisions at the community level must also share the blame for delay. However, as slow and discouraging as this type of decision-making may sometimes become, any alternative course would have been contrary to the spirit of the law that was responsible for regional medical programs, and an outright betrayal of the citizens of Iowa.

In addition to a small core staff for administration and planning, the program now has eight projects fully staffed and fully operational. Below are a list of these projects and brief descriptions of the services they are offering:

CURRENT PROJECTS OF THE IOWA RMP

1. A CENTRAL STROKE EDUCATIONAL PROJECT. This project is directed by Maurice Van Allen, M.D., Department of Neurology, University of Iowa, and is a joint effort of the University's Colleges of Medicine and Nursing, and Klein Memorial Hospital, Burlington.
 a. A two-week course in rehabilitation nursing at Klein Memorial Hospital is directed by Burton Stone, M.D. The course is offered once each month.
 b. Nursing seminars on stroke management are organized at the community level by Meridean Maas, R.N., College of Nursing, University of Iowa.
 c. A one-day stroke management refresher course for physicians is provided each month by the Department of Neurology, University of Iowa, under the coordination of John Taylor, M.D.
 d. A three-day nursing course in acute stroke management is provided once each month by the Department of Neurology, University of Iowa, in cooperation with the Nursing Service of University Hospitals.
2. A COMPREHENSIVE STROKE MANAGEMENT PROJECT is administered by the Iowa Heart Association. The project is designed to provide education and services at the community level.
 a. Nursing workshops in stroke rehabilitation are conducted throughout a 14-county area in north central Iowa, an eight-county area in central Iowa, and a 13-county area in northwestern Iowa.
 b. Home nursing rehabilitation services are provided throughout a 14-county area in north central Iowa.
 c. A four-bed stroke unit at Mercy Hospital, Des Moines, provides intensive stroke care and serves as a demonstration model for teaching purposes and for the collection of data.
3. A TRAINING PROJECT IN CARDIOPULMONARY RESUSCITATION is administered by the Iowa Heart Association. The project provides courses in cardiopul-

Mr. Caldwell is assistant coordinator of the Iowa Regional Medical Program.

monary resuscitation throughout Iowa.

4. A PROJECT FOR EDUCATING AND TRAINING NURSES AND PHYSICIANS RESPONSIBLE FOR THE OPERATION OF CORONARY CARE UNITS. Directed by Donald Warkentin, M.D., this project is a cooperative undertaking of the Colleges of Medicine and Nursing of the University of Iowa, University Hospitals, the Des Moines Area Community College and four Des Moines hospitals.
 a. A five-day course for physicians, directed by Donald Warkentin, M.D., is offered four times each year at the College of Medicine, University of Iowa.
 b. A four-week course to train nurses to work in coronary care units—a joint project of the Colleges of Medicine and Nursing, University of Iowa—is coordinated by LaVonne Ruther, R.N. The course is conducted six times each year.
 c. A four-week course to train nurses to work in coronary care units—a joint project of the Des Moines Area Community College and Mercy, Methodist, Lutheran and Des Moines General Hospitals—is coordinated by Charles Gutenkauf, M.D., and Jacquelyn Smith, R.N. The course is offered six times each year.
5. A PROJECT FOR THE APPLICATION OF NEW TECHNIQUES UTILIZING A NEW MEDICAL TEAM APPROACH FOR THE DIAGNOSIS AND FOLLOW-UP CARE OF CHILDREN WITH HEART DISEASE IN THE STATE OF IOWA. This project, funded in February, 1969, is directed by Ronald Lauer, M.D., and is the cooperative effort of the Department of Pediatrics, University of Iowa, and the Iowa Crippled Children's Service. The object of the project is to alleviate a critical manpower shortage among pediatricians and to improve services to children suffering from cardiac disorders. It involves:
 a. The application of hybrid computer screening techniques for the cardiovascular evaluation of children.
 b. The training of pediatric clinical associates—new health-team members who will provide the initial and follow-up medical interrogations, limited examinations, and counsel for children and their families.
6. A CONTINUING CANCER EDUCATION PROJECT FOR PHYSICIANS AND ALLIED HEALTH PERSONNEL. This project, administerd by the Central Tumor Registry, University of Iowa College of Medicine, and directed by Joseph Buckwalter, M.D., is designed to offer educational programs on cancer for practicing physicians and allied health professionals within the community hospital setting, utilizing the data collected through the Central Tumor Registry and its cooperating hospitals. The project is due to begin receiving funds from the Iowa Regional Medical Program on January 1, 1970.
7. ECONOMIC STUDIES, DIVISION OF MEDICAL ECONOMICS. Located in the College of Business Administration, University of Iowa, and directed by James Jeffers, Ph.D., this project involves the analysis and interpretation of data pertaining to the health care delivery system in Iowa which have been collected during the period covered by a two-year planning grant.
8. A COORDINATED OUT-OF-HOSPITAL SERVICES PROJECT. Administered by the United Community Services of Des Moines, the project will terminate on September 30, 1969. It is directed by Marguerite Cothorn, M.S.W., and includes the following services:
 a. Health resources referral service.
 b. Coordinated home care team.
 c. Meals delivered to the homebound.
 d. Handyman services for the homebound.

 Arrangements have been made for full local support of these services upon the termination of the project grant.

OUTSTANDING ACCOMPLISHMENTS OF THE IOWA RMP

Complete progress reports on all operational projects can be obtained from Iowa Regional Medical Program, 308 Melrose Avenue, Iowa City, Iowa 52240.

A comparison of the Iowa Regional Medical Program and other regional medical programs shows that our progress has been good, particularly when the sums expended are also compared. Generally our projects have been built upon the foundation of good working relationships, and they have been accepted by practicing physicians and others in the health field.

We have been able to get right down to the tasks at hand, whereas many other regional programs are still struggling with basic organizational procedures and cooperative ar-

rangements. This initial progress has been occasioned by several advantages that the Iowa Program has had over most other regional programs. First, because the boundaries of our Region are the same as those of the State of Iowa, we have not had to work out arrangements with more than one each of state medical societies, colleges of medicine, health departments, hospital associations and other state wide governmental, professional and voluntary agencies.

Second, we have had the strong support and cooperation of organized medicine, and for the most part we have had the interest and support of individual physicians. Some physicians are still apathetic toward the Program, and there even are a few who are openly hostile. We believe the confidence of the individual physician will grow stronger as he learns that our actions support our words, and that the Iowa Regional Medical Program is not just one more governmental boondoggle designed to undermine the practice of medicine. We realize that the burden of proof rests with the Program, and we have accepted the challenge of supplying that proof.

Administrative policies at the national level cannot arbitrarily force the Iowa Regional Medical Program in a direction that is incompatible with Iowa's accepted and mutually developed health patterns. We do not look upon ourselves as "representatives of the federal government," but as "Iowa's representatives to the federal government." This is the only acceptable and workable point of view for all current staff members of the Program's core office.

Third, as the Program's governing body, the Iowa Regional Advisory Group—made up primarily of a broad cross section of health professions and organizations, but with non-health representation—has exhibited excellent leadership.

Fourth, the University of Iowa College of Medicine, the Program's grantee organization, has demonstrated an admirable willingness to refrain from interfering with the decisions of the Regional Advisory Group, even though the University must, by law, retain fiscal and scientific responsibility. The large medical centers in many other regions have dominated programs, usually at the cost of any meaningful outward thrust to the community. Willingness of the U. of I. College of Medicine to give strong support without attempting to dominate suggests a continuing and growing emphasis on relating to the communities of Iowa.

Fifth, the good progress in the development of area health planning councils, due primarily to the stimulation and leadership provided by the Health Planning Council of Iowa, is already providing a mechanism through which the community can express its needs accurately and democratically. Most other states are lagging far behind Iowa in this development, and as a result, many regional medical programs are engaging in costly and time-consuming autonomous activity in community organization.

Sixth—and last but not least—is the strong leadership of the Program's coordinator, Dr. Willard Krehl, who has believed from the beginning that the Program must truly represent the health practitioners of Iowa, and who has "stuck by his guns" at every significant juncture.

As a result of these advantages, Iowa has a program that is well accepted. We have a Regional Advisory Group through which sound decisions can be made. The involvement and cooperation of the major health institutions and professions with the Program and with each other are laying strong foundations for future progress. A conscientious review mechanism for evaluating project proposals has reached a high level of sophistication.

In both planning and operations, every effort has been made to avoid duplication of existing services, and the full utilization of existing health systems can be documented. Not one operational project is administered by the Program's core structure. It can be shown that every project enhances or strengthens existing health systems and is administered through already-existing agencies that have affiliated with the Program. As a result, we have projects offering valuable services for many fewer tax dollars than would otherwise be possible.

UNSOLVED PROBLEMS

After the foregoing self-congratulation, it is only right that we should express our major concerns and disclose our unsolved problems. Some are internal, but most relate to external influences.

There is the unsolved problem of how best to gather the information we need in order to set objective priorities and make good deci-

sions. To date, the priorities set and the decisions made by the Program have been based largely on common sense, experience and intuition. Our priorities may have been good ones, but the Program can be criticized for its inability to support them adequately. For example, we lack reliable morbidity data in this state, and some might even question the reliability of our mortality data.

The Division of Medical Economics of the U. of I. College of Business Administration, supported by a two-year planning grant, has been involved in amassing baseline data in connection with health economic research. Though the ultimate value of these studies cannot be questioned, much of the resulting information, in its present form, is too esoteric for practical use.

Presently there is no systematic program for data collection and interpretation within the Iowa Regional Medical Program, nor has a final decision been made as to what form an information system should best take to meet our needs.

I agree with Dr. John Knowles' statement: ". . . The mere collection of data and the use of techniques will be no substitute for the proper interpretation by and the wise foresight of the planners. . . . Occasionally the collection of massive social and economic data degenerates into a mind-stunting morass of useless fiddle-faddle, important only to the comfortable thought of the bureaucrat."[1]

Information is only as good as the user's ability to comprehend it and put it to work. What we are searching for, but have not yet discovered, is a system for collecting the data that we need if we are to make sound decisions and set reasonable priorities—a system which falls somewhere between the fragmented "catch-as-catch-can" method presently being utilized and the useless and costly "fiddle-faddle" to which Dr. Knowles referred.

Another obstacle to setting priorities derives from the way the national review mechanism is designed. This mechanism also reduces to a half-truth the statement that "regions are free to establish their own priorities."

The Review Council in Washington reviews and approves all project proposals on a competitive basis. Therefore individuals at the regional level are hesitant to set priorities because they may not coincide with those set by the people at the national level. Regional medical programs are inclined to evaluate project proposals on the basis of quality, exclusive of priorities, since obtaining funds for a good "low-priority" project is better than obtaining no funds at all.

What is needed is a national evaluation that will emphasize the quality of the program's structure, its decision-making process and its review mechanism, and will leave individual project evaluations to the region.

As one might expect, the single largest concern of the Iowa Regional Medical Program has to do with funding. It is true that recent appropriations for regional medical programs leave much to be desired (particularly when compared with appropriations for moon-walking and war-making), but we are less concerned about the lack of funds than about how funds are administered.

The Iowa Regional Medical Program's core structure is one of the smallest in the nation. We are proud of that fact, for it further supports our conviction that our Program was not intended to duplicate or replace existing resources—including the expertise and talent which can be found within existing institutions.

The responsibility of the core structure has been identified primarily as one of coordination, communication and administration. To develop a new army of highly paid medical specialists and academicians, duplicating those already working at institutions in the area would be "robbing Peter to pay Paul." It would involve removing more and more physicians and other health personnel from patient-oriented, self-supporting systems, and moving them under the ever-mushrooming federal umbrella, and placing pencils in their hands, rather than stethoscopes or scalpels! The taxpayer's burden would become heavier, and the health manpower shortage more acute.

The actions of many other regional medical programs do not reflect our philosophy. It is not unusual for over half of a regional medical program's total budget to be earmarked for use by its core structure. The core structure of the Iowa Regional Medical Program employs only seven professional staff persons. There are more than a few examples of re-

gional medical programs with staffs 10 times that large.

Large core structures and a lack of concrete results are not uncommon, especially in large metropolitan areas where it seems to be much more difficult to get institutions and individuals to plan and work together. Illustrating the problems common to many metropolitan regional medical programs are the experiences of the one in New York City. In a recent editorial in HEALTH-PAC, Mills Matheson labelled it the "two million dollar misunderstanding." He explained that a decentralized core structure was established, giving each medical school $45,000 to employ whatever RMP staff it needed—all of that in addition to a central core structure.[2]

The trend toward empire building, if not halted, will have a direct effect on our own program if Washington does not make every effort to refrain from evaluating a program by the number of dollars spent and the numerical size of the "empire." For years, those who control the federal pursestrings have practiced "historical budgeting." In other words, many of the criteria upon which grants have been awarded have had to do not with *how money is to be* expended, but with *how much money has been* expended. When budgetary cuts become necessary, moreover, they are made on an arbitrary percentage basis, across the board, with no consideration for the quality of individual programs.

In this connection, it appears that the Division of Regional Medical Program Services, in Washington, has very little knowledge of what is going on in Iowa. Representatives of the Division have made one-day site visits, sporadically, in connection with individual project proposals, but they are inadequately aware of our philosophies, directions or accomplishments.

After a recent workshop for regional medical program coordinators, Dr. George Miller, special consultant to the workshop, wrote to the director of the Division: "If I were to capture the major plea of coordinators in a single phrase, it would be a plea for better communications between Division and regions."[3]

In this historical-budgeting system, a program is penalized for maintaining a tight ship! Dr. Krehl has exercised a persistent forthrightness that has sometimes been interpreted as outright cussedness. He has stubbornly refused to become a part of the political game of grantsmanship that has plagued our federal system for years—wasting tax dollars and ignoring a reasonable accounting to the taxpayer.

The awesome danger in all of this lies in the future. No matter how worthy the cause, no matter how imaginative or original the approach, regional medical programs cannot persist as effective instruments unless they can demonstrate good cost benefits and sound accomplishments.

Sad but true, one trim ship cannot save the fleet. The Iowa Regional Medical Program stands out clearly as a consequence of the unique direction it has taken. We have been accused by some people of being naive. By not playing the game we have passed up opportunities to bring a great number of federal dollars into Iowa coffers. We often wonder about the wisdom of that policy, ourselves. The question thus arises: "Is this any way to run a regional medical program?"

REFERENCES

1. Knowles, J. H.: University hospital as community health resource. Hospitals, February 16, 1966.
2. Matheson, M.: Regional medical program—anatomy of a muddle. Health-Pac, July-August, 1969.
3. Miller, George, of the University of Illinois College of Medicine: Letter to Stanley Olson, director, Division of Regional Medical Programs, June 24, 1969.

Short Course in Neonatal Nursing

A continuing education program on neonatal nursing was held at the U. of I. Health Center, in Iowa City, from July 21 through August 8, for University Hospitals nurses, and plans are now being made to repeat it for a limited number of nurses from other institutions. Interested nurses shou'd write to Dr. George Baker, Assistant Professor of Pediatrics, U. of I. College of Medicine, Iowa City 52240, for further details.

Among the many topics covered were an introduction to neonatal intensive care, the neurologic status of the neonate, acid-base physiology, cardiovascular status, nutrition, electrical equipment, surgical problems and respiratory status. The faculty consisted of Dorothy Maher, R.N., pediatric consultant for the State Services for Crippled Children (SSCC); Mary Maturen, R.N., pediatric nursing supervisor; Marjorie A. Moore, Ph.D., associate director of the U. of I. nursing service; June Smith, R.N., SSCC public health nurse consultant; and faculty members from the Departments of Anesthesia, Internal Medicine, Pediatrics and Surgery.

Kidney Transplantation in Iowa

WILLIAM W. BONNEY, M.D.
Iowa City

KIDNEY TRANSPLANTATION activities have begun at the University of Iowa Medical Center (Veterans Administration Hospital and University Hospitals). The first kidney transplant at the Medical Center will probably be performed this fall.

This article is intended as an introduction to new developments in our overall approach to the treatment of end-stage renal disease, with emphasis upon organ transplantation.

The primary goals for the University Medical Center program are to help expand the number of services available to patients in the State of Iowa, to offer postgraduate training opportunities to resident physicians and to the larger medical community, and to pursue basic research leading to improvements in these scientific areas.

Recent survival statistics on kidney-transplant patients are very encouraging, but there is urgent need for further improvement. Although this form of treatment can now be offered to many patients, it remains essentially an experimental procedure. The University Medical Center will continue to apply and evaluate new forms of immunosuppressive therapy and other techniques as they become available.

EVALUATION OF END-STAGE RENAL DISEASE

In the treatment of chronic renal disease all possible types of standard conservative treatment should be applied. Exhaustive studies are warranted in order to rule out remediable medical or surgical conditions in which renal function can be improved. Finally, a renal biopsy is needed to confirm the irreversible nature of parenchymal disease.

After this sort of medical workup, a patient can be considered for chronic hemodialysis or for kidney transplantation. It is beyond the scope of this paper to describe in detail the complex factors that must be reviewed in each case.

REFERRAL OF PATIENTS WITH CHRONIC RENAL DISEASE

1. To facilitate confirmation of the diagnosis and pursuit of all possible types of conservative treatment, referral should be made to appropriate specialists in the fields of internal medicine, pediatrics or urology.

2. After confirmation of end-stage renal disease, the patients who are thought to be candidates for long-term hemodialysis or transplantation will be evaluated by the University of Iowa Renal Hypertension and Electrolyte Division, in cooperation with the Department of Pediatrics.

3. Upon recommendation by that service, selected patients will then be further considered for acceptance by the Kidney Transplant Team.

FINANCING THE COST OF TRANSPLANTATION

The immediate cost of hospital and outpatient care will be an individual responsibility. In addition to the patient's own financial resources, third-party private insurance and welfare payments will be used increasingly. Blue Cross, for example, has already covered the cost of some kidney transplants under its criteria for usual, customary and reasonable fees.

It is generally agreed that the cost of transplantation for the "average" patient is about $10,000. Computation of such an "average" necessarily includes, of course, the extraordinary costs incurred by a number of patients who undergo prolonged hospitalization and retransplantation as a result of the rejection reaction and successive failures of the transplanted organs. These costs can be expected to fall as treatment methods improve.

(Recently a number of Iowa patients have gone to out-of-state medical centers for renal transplantation, according to information reviewed by the I.M.S. Transplantation Committee. Eight such cases have incurred an average cost of $30,000. Obviously more personal and

Dr. Bonney is chief of the Urology Service at the Iowa City Veterans Administration Hospital, an assistant professor of urology at the U. of I. College of Medicine, and coordinator of the Kidney Transplant Team at the two institutions.

community funds are needed if someone is to be sent a long way from home for treatment.)

In addition, there are many new services which are still performed in research laboratories and would be prohibitively expensive on an individual basis. Also to be considered are the costs of the basic research which should underlie every transplantation program at the present time. In order to finance these supporting services, separate public funds must be sought.

CAPACITY FOR PATIENT CARE

It is currently estimated that every year, in the State of Iowa, there will be approximately 90 new candidates for chronic hemodialysis or transplantation. Beginning in the fall of 1969, the transplantation program will be able to accept one new patient per month during the first year, and approximately two patients per month during the second year. On the basis of present methods and results, its top capacity will be about four patients per month.

Similar expansion is expected in the hemodialysis capability. At the present time the Iowa City Veterans Administration Hospital has 10 dialysis beds, and there are three at University Hospitals. About 20 patients are currently being maintained in these facilities. Although this capacity will grow, it is expected that in the future it will be used more frequently for special cases and for pretransplantation management. The larger number of patients to be maintained on chronic hemodialysis must depend upon home dialysis under the supervision of "satellite" dialysis centers located in many Iowa communities. The Renal Hypertension and Electrolyte Division plans a large-scale training program for physicians, nurses and technicians in order to stimulate initial community interest and to help provide staff for these satellite centers.

ORGANIZATION OF THE TRANSPLANTATION SERVICE

An interdepartmental clinical service has been created to integrate all transplantation activities at the Veterans Hospital and University Hospitals. The dean of the College of Medicine annually reappoints the members of a three-man administrative committee. For the current year they are Dr. Walter Kirkendall, chairman, Dr. Sidney Ziffren and Dr. Rubin Flocks. Under the general direction of this committee, a kidney transplant team has begun preparations for patient care. The team includes:

Dr. William Bonney, Department of Urology, coordinator

Dr. George Theil, Department of Internal Medicine

Dr. Richard Lawton, Department of Surgery

Dr. George Kaloyanides, Department of Internal Medicine

Dr. Gerald DiBona, Department of Internal Medicine

Dr. Charles Hawtrey, Department of Urology

Dr. Mark Immergut, Department of Urology

Dr. Kenneth Printen, Department of Surgery

Dr. Linda Rames, Department of Pediatrics

In the Renal Hyptertension and Electrolyte Division, Dr. Theil and other members of the Division will supervise the preliminary evaluation of all potential candidates, and Dr. Richard Freeman will supervise dialysis activities. A coordinated program for chronic dialysis is being developed in the state to aid in the preparation and holding of patients for cadaver transplants.

SUPPORTING SERVICES

Histocompatibility Typing. Dr. John S. Thompson, chief of the Medical Service at the Veterans Hospital, has organized a histocompatibility typing laboratory which is prepared to offer an exhaustive panel of serologic and family-genetic studies to all Iowa transplantation patients. These guidelines remain our most important ones for insuring the success of any transplant. Primarily, in the beginning, the program will accept patients with closely matched family donors. The typing laboratory is also developing improved typing methods and is conducting other experiments in basic immunology.

Organ Preservation. Dr. Richard Lawton has organized a team of doctors and technicians to prepare for the recovery and preservation of cadaver organs. The organs must be recovered before they have been severely damaged by cardiovascular collapse. This endeavor will be conducted within the frame-work of principles generally acceptable to the lay and professional communities. It is also important for us to have the technical capability to maintain an organ in perfect condition for an indefinite number of hours while it is transported to the Medical

Center, while histocompatibility typing is done, and while the best recipient is prepared for surgery. It is general practice to remove an organ from a living voluntary donor only when the degree of genetic relationship is close enough to insure superior results. This means that over half of all potential recipients must rely upon cadaver sources. As the transplantation program expands, cadaver organs will be needed from an increasing number of Iowa communities. We hope to enlist physicians and surgeons throughout Iowa in the active support of, and participation in, this program.

Immunosuppression. The author (Dr. Bonney) has organized a transplantation laboratory primarily for the purpose of improving treatment methods. Current treatment is adequate for most well-matched family-donor cases, but it proves inadequate for many cadaver-organ transplants. Antilymphocyte serum is the most recent immunosuppressant to be developed for human use. Although it is effective beyond any doubt in small laboratory animals, its evaluation in human beings has been difficult. The transplantation laboratory will raise large quantities of highly purified antilymphocyte serum, demonstrate its potency and lack of toxic side effects in subhuman primate experiments, and provide the material for use in selected transplant patients. The individual patients will benefit from this treatment (at a low cost to the program, in comparison to commercial prices), and the evaluation of this clinical trial may be an important scientific contribution.

PROFESSIONAL PARTICIPATION IS INVITED

The University Medical Center would like to encourage the interest and to invite the participation of Iowa physicians and surgeons. Satellite-center and home dialysis will depend entirely upon the interest of the profession in the various communities. As the transplantation program grows, the supply of available cadaver organs will depend greatly upon the interest maintained by the hospital-staff members in these communities. Every referring physician will be invited to participate in the postoperative care of his patient. We hope to join forces with other professional groups in the state in planning seminars and training conferences.

The University of Iowa Medical Center hopes in this way to extend the range of treatment possibilities available to Iowa doctors and their patients.

Symposium on Acute Myocardial Infarction at La Crosse

The Adolph Gundersen Medical Foundation and the Wisconsin Heart Association will present a symposium on acute myocardial infarction in Valhalla Hall at the Wisconsin State University at La Crosse, on Wednesday, October 1. The registration fee will be $5, and luncheon tickets will be $1.50 each. The program is acceptable for five hours' elective credit to the American Academy of General Practice.

9:30 a.m. "Acute Myocardial Infarction—The Diagnosis"—Robert J. Hall, M.D., chief of cardiology, Walter Reed General Hospital, Washington, D. C.

10:00 a.m. "The Use of Lidocaine for the Treatment and Prevention of Cardiac Arrhythmias Following Myocardial Infarction"—Donald C. Harrison, M.D., chief of cardiology, Stanford University School of Medicine, Palo Alto

11:00 a.m. "The Management of the Coronary Crisis"—John P. Shillingford, M.D., professor of angiocardiology, Royal Postgraduate Medical School, London

11:30 a.m. "Exercise and Myocardial Infarction—Value and Limitations"—Herman K. Hellerstein, M.D., chief of the cardiology outpatient department, University Hospitals of Cleveland

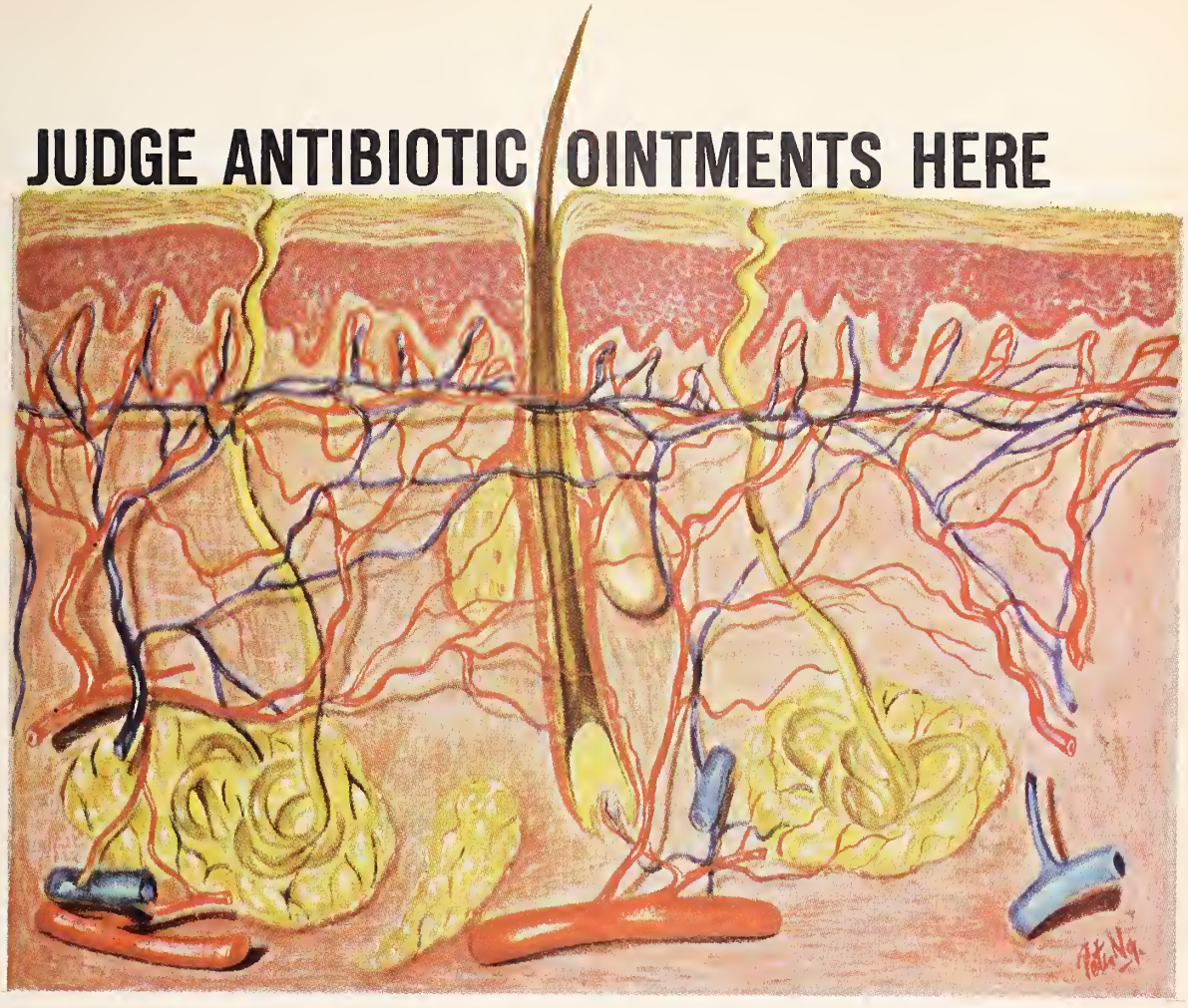
12:00 noon "Surgically Correctable Cardiac Complications of Acute Myocardial Infarction"—W. Gerald Austen, M.D., chief of surgery and of the surgical cardiovascular research unit, Massachusetts General Hospital, Boston

12:30 p.m. LUNCHEON (Advance registration required)

2:00-4:00 p.m. QUESTIONS AND ANSWERS ON ACUTE MYOCARDIAL INFARCTION. All of the speakers will participate in an informal discussion with members of the audience. Registrants will be asked to submit their questions in written form.

For further information, address A. Eric Gundersen, M.D., Gundersen Clinic, La Crosse, Wisconsin 54601.

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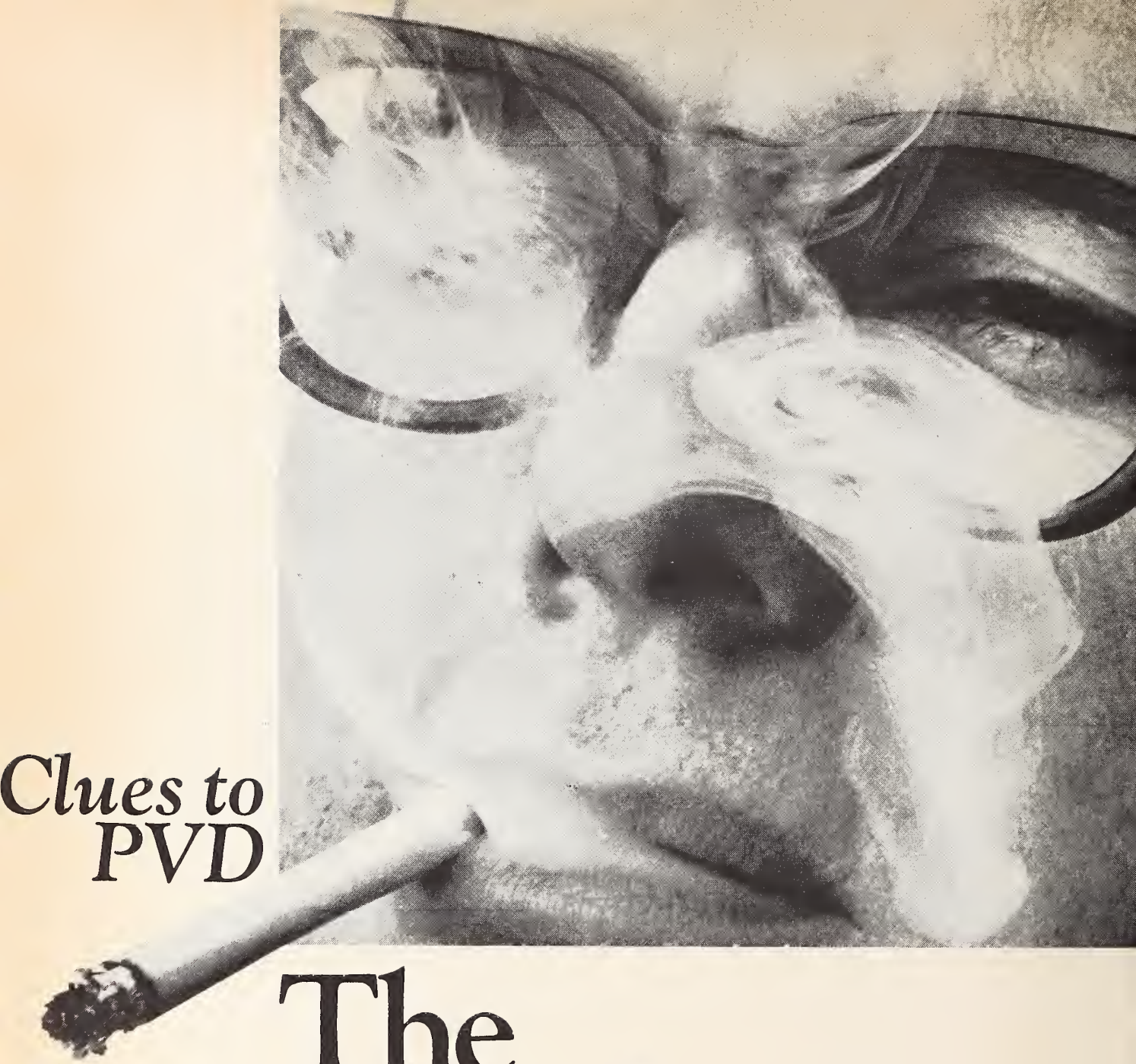
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Scientific Articles

Genetic Counseling in Medical Practice: Part II

HANS ZELLWEGER, M.D.
Iowa City

As was said in the introductory paragraphs of Part I of this paper, which was published in the August issue of this journal, the astounding advances in the genetic sciences that have been achieved during the past decade prompt young couples—parents-to-be—to ask about the risks to which their progeny will be subject, especially if either of them has a relative afflicted with a genetic or a cytogenetic disease.

There are three categories of genetic diseases: (a) diseases due to chromosomal aberrations (cytogenetic diseases); (b) diseases due to a single mutant gene or gene pair (classic Mendelian inheritance); and (c) diseases due to multiple minor genes (polygenic or multifactorial inheritance). Part I of this article dealt with the first of those three. The latter two will now be discussed.

SINGLE-GENE (MENDELIAN) INHERITANCE

A single mutant (abnormal) gene can be located on an autosomal chromosome (autosomal inheritance) or on an X chromosome (X-linked inheritance). Males have only one X chromosome and thus are hemizygous with respect to the trait linked to the X chromosome. There are different phenotypic effects of X-linked genes in males and in females. Autosomal genes show the same effect in males and females. The few exceptions to this rule are related to the sex limitation of a trait. Baldness, for instance, is transmitted as an autosomal dominant trait, yet it is phenotypically apparent only in males. Genes located in identical sites (loci) on the two homologous chromosomes of a pair are called alleles or allelomorphic genes. One speaks of homozygosity if both alleles transmit exactly the same genetic information. In the heterozygous state, two alleles carry somewhat dissimilar genetic information. If the genetic information of one allele suffices to produce a phenotypically apparent trait, it is called dominant. A recessive trait becomes manifest only when both alleles carry the same information. The following patterns of single-gene inheritance are known: dominant and recessive inheritance of autosomal and of X-linked traits.

Autosomal Dominant Inheritance. Usually, in autosomal dominant inheritance (AD), only one parent carries the mutant gene. This occurrence is sufficient to produce disease and to transmit it to half the offspring. Males and females are affected with equal frequency. AD disease may occur in several (most often consecutive) generations, and in more than one sibship of the same generation. (See Figure

Dr. Zellweger is a professor of pediatrics at the University of Iowa College of Medicine. The research on which the statements contained herein are based was supported by a grant from the National Foundation for Neuromuscular Diseases, New York, N. Y. This paper was prepared for the Postgraduate Course on Obstetrics and Gynecology presented at the University of Iowa in February, 1969.

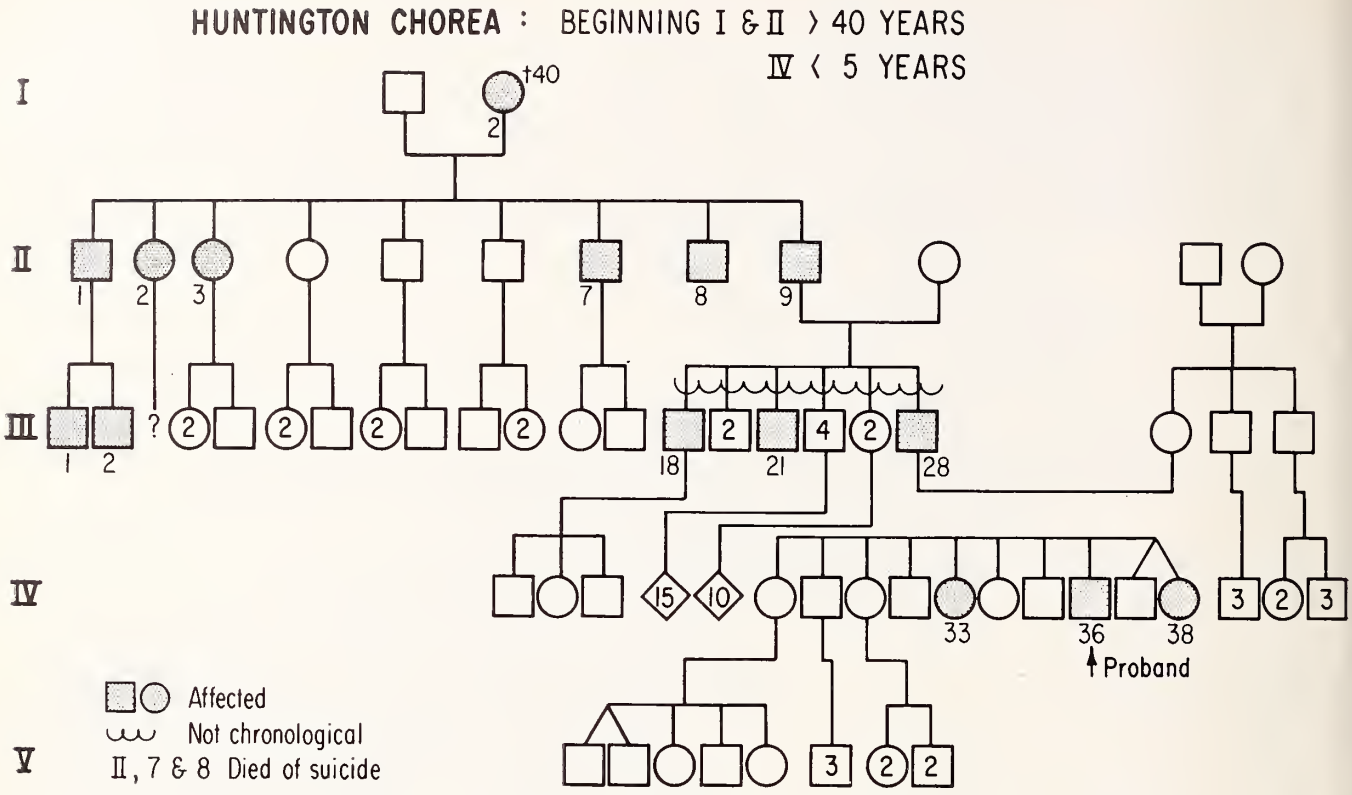


Figure 7. Pedigree of a family with Huntington chorea as an example of autosomal dominant inheritance.

TABLE 2

SELECTED AUTOSOMAL DOMINANT CONDITIONS AND ANOMALIES

Minor Anomalies	
Brachydactyly	Symphalangism
Syndactyly	Eartags
Major Anomalies	
Cleft lip/palate with mucous cysts of lower lip	Pulmonic stenosis*
Holt-Oram syndrome	Supravalvular aortic stenosis*
	Polycystic kidneys (adult form)
Connective-Tissue Disorders	
Marfan's syndrome	Mandibulofacial dysostosis (Treacher-Collins)
Ehlers-Danlos syndrome	Osteogenesis imperfecta
Cleidocranial dysostosis	Achondroplasia
	Multiple exostoses
Neurological Disorders and Myopathies	
Neurofibromatosis	Huntington's chorea
Tuberous sclerosis	Spinal muscular atrophies (some forms)
Spinocerebellar ataxias*	Peroneal muscular atrophy
Facioscapulohumeral type muscular dystrophy	Myotonia congenita (Thomsen)
Oculopharyngeal muscular dystrophy	Periodic paralysis
Dystrophia myotonica	Central core disease
	Nemaline myopathy
Miscellaneous and Tumors	
Acute intermittent porphyria	Retinoblastoma
Hereditary hemorrhagic telangiectasis (Rendu-Osler)	Familial polyposis recti (various forms)

* Not all forms are AD

7.) A selection of AD conditions are listed in Table 2.

Many AD traits cause minor deformities but are quite compatible with a normal life and thus do not call for any measure of preventive eugenics. Prevention of pregnancy—in some instances even sterilization—has to be considered for more severe AD conditions. Needless to say, sterilization is justified only for the gene carrier and not for the genotypically-normal mating partner. If the husband is the carrier of an AD trait, artificial insemination with sperm from a normal male may be indicated. If the wife carries the mutant gene, adoption would be more appropriate. Abortions are eugenically indicated if either one of the parents carries the mutant gene.

Two AD diseases deserve to be especially considered, namely Huntington's chorea and neurofibromatosis. Huntington's chorea, a severe AD disease, often becomes clinically apparent when the patient reaches the age of 35 years or more—i.e., at a time when most peo-

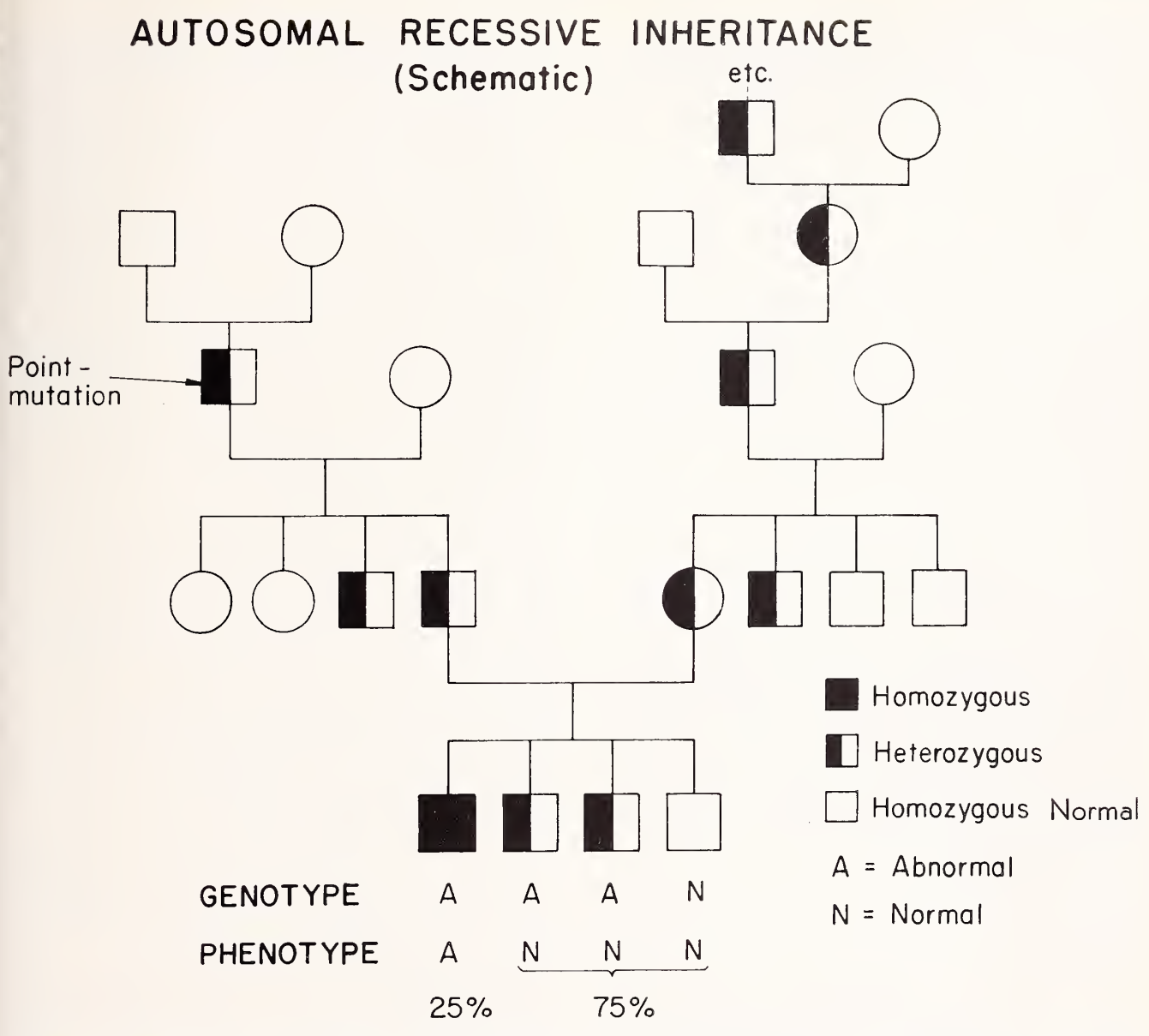


Figure 8. Autosomal recessive inheritance. Schematic drawing shows that heterozygosity may exist throughout several generations without becoming apparent.

ple have already reproduced. Indeed if such an individual unknowingly carries the mutant gene, he or she may have transmitted it to the next generation. Prevention of Huntington's chorea, therefore, is possible only if all offspring of an affected parent refrain from reproduction by means of birth control or sterilization.

Neurofibromatosis is characterized by incomplete penetrance and varying expressivity of the mutant gene. Within a particular family one member may have no more than a few *café au lait* spots, but others are severely afected with disfiguring arrays of neurofibromata, with intracranial tumors, or with the various more or less severe endocrine disorders often associated with the disease. Persistent expressivity of the mutant gene is rare, although families with acoustic neuroma transmitted through several generations have been described.

Autosomal Recessive Inheritance (AR). AR inheritance is characterized by the following criteria. Both parents are heterozygous for the mutant gene. Offspring of such a mating run a 25 per cent risk of inheriting the mutant gene from both parents, and hence being afflicted with the disease. Boys and girls are affected with equal frequency. Seventy-five per cent of the offspring will be phenotypically healthy, yet two-thirds of these will be heterozygous carriers of the mutant gene. Heterozygosity of an AR gene may be present in a family for many generations without producing disease

TABLE 3

SELECTED AUTOSOMAL RECESSIVE CONDITIONS

Conditions of Lesser Severity	
Alkaptonuria	Pentosuria
Albinism	Renal Glycosuria
Acatalasia	Pseudocholinesterase deficiency
Conditions Amenable to Treatment	
Von Gierke's disease (liver glycogenosis type 1)	Phenylketonuria (PKU)
Forbes' disease (liver glycogenosis type 3)	Homocystinuria
Galactosemia	Maple-syrup urine disease
Hereditary fructose intolerance	Adrenogenital syndrome
Disaccharidase deficiencies (various primary enzyme deficiencies)	Thyroid enzyme deficiencies
	Wilson's disease
More Severe Conditions	
Hemoglobinopathies such as Cooley's and sickle cell anemia	Mucopolysaccharidoses (except Hunter's disease)
Familial cystic disease (cystic fibrosis of the pancreas)	Cystinosis
Cardiomuscular glycogenosis (Pompe's disease)	Pendred's disease
Deafmutism (various forms)	Ataxia telangiectasia
Amaurotic familial idiocy and other cerebral lipoidoses, gangliosidosis and metachromatic leukodystrophy	Spinal muscular atrophies (some forms)
Spongy degeneration (Canavan)	Limb girdle muscular dystrophy
Familial dysautonomia (Riley-Day)	Congenital muscular dystrophy
Miscellaneous	
Chondroectodermal dysplasia	Laurence-Moon syndrome

and without being recognized. (See Figure 8.) A selection of AR diseases are listed in Table 3.

Genetic advice for carriers of severe AR diseases such as spinal muscular atrophy, cardiac glycogenosis, muscular dystrophy and familial cystic disease (cystic fibrosis) may differ from that for more benign conditions such as pentosuria or AR conditions like galactosemia which are amenable to adequate treatment. Treatment regimens for other conditions —among them phenylketonuria (PKU), homocystinuria and maple-syrup urine disease—are far from satisfactory, however. For such conditions, as well as for the severe non-treatable AR diseases, reproduction is not desirable, and eugenic abortion may be indicated. Sterilization of a mating partner is definitely contraindicated for AR conditions, notably in a society where mating partners change quite frequently and where the divorce rate is high.

Healthy siblings of an individual with AR disease have a 67 per cent chance of being heterozygous for the respective mutant gene. Their risk of mating with a heterozygous carrier of the same gene is high in consanguineous marriages. For example, the risk is 25 per cent if a heterozygote marries a first cousin. Random association of heterozygotes is fairly high for AR conditions of high frequency such as familial cystic disease. The gene frequency for this condition is one in 20. A heterozygous sibling of a patient with familial cystic disease thus has a 5 per cent chance of randomly selecting a heterozygous carrier of the same gene. Consequently he runs a 1.25 per cent risk of having children affected with familial cystic disease. For rarer diseases the probability that random mating will bring two heterozygotes of the same gene together is small. A sibling of a PKU child has an 0.7 per cent risk of marrying an individual who is heterozygous for the same gene, and runs no more than an 0.2 per cent risk of having children affected with PKU.

Nevertheless, even if the risk of random association is low, healthy siblings of children with AR disease will want to know whether or not they carry the gene. Research is continuing to determine heterozygosity for a number of conditions such as PKU, galactosemia, hemoglobinopathies, familial cystic disease, Wilson's disease, mucopolysaccharidosis, etc. Tay-Sachs, disease, Wilson's disease, mucopolysaccharidosis, etc. Various biochemical and tissue-culture techniques are being developed for this purpose.

TABLE 4

SELECTED X-LINKED RECESSIVE CONDITIONS

Agammaglobulinemia (Bruton)
Color blindness (various forms)
Hemophilia A
Hemophilia B (Christmas disease)
Duchenne type muscular dystrophy
Becker type muscular dystrophy
Mucopolysaccharidosis (Hunter type)
Oculocerebrorenal syndrome (Lowe)
Lesch-Nyhan syndrome, hyperuricemia
Glucose-6-phosphate dehydrogenase deficiency*

* This last condition per se does not cause clincal manifestations, though it precipitates hemolysis after ingestion of fava beans, primaquine, mothballs, etc.

X-Linked Recessive (XR) Inheritance. Over 100 traits linked to the X chromosome are already known. A few are X-linked dominant, but most of them are X-linked recessive. A selection of some of the more important XR diseases can be found in Table 4.

XR disease may occur in several generations, and affects members of more than one sibship in the same generation. Males carrying the mutant gene will be affected, but females will develop XR disease only if they are homozygous for the mutant gene. Consequently, XR disease is rarer in females than in males. Color blindness, for instance, is found in 6 to 8 per cent of American males, but in fewer than 0.5 per cent of American females. Females who are heterozygous for the mutant gene are called carriers or conductors. Some of them may show evidence of mild clinical disease, satisfactorily explained by the hypothesis of Mary Lyon,* yet most conductors are phenotypically normal.

Sons of a conductor run a 50 per cent risk of being affected, and daughters carry a similar risk of inheriting the carrier state. All daughters of an affected male will inherit the mutant gene from their father, and thus will become carriers, but the sons never inherit an X-linked trait from their father.

Females who have a relative with XR disease will want to know whether or not they may transmit the disease to their offspring. One distinguishes between "proven," "probable" and "possible" carriers. A woman is a proven or true carrier if she has at least one affected brother and one affected son. A woman who has at least two affected sons but no other affected relatives is called a probable carrier. Mothers who have only one affected son and girls who have an affected brother are called possible carriers. In recent years biochemical tests and tissue-culture methods have been developed for determining the true carrier state for some XR diseases with fair accuracy. Carriers of the gene for X-linked muscular dystrophy often show a mild to moderate elevation of such serum enzymes as creatine phosphokinase and aldolase. Some carriers also show evidence of muscle disease in the muscle biopsy. Some probables and possibles can be identified as true carriers by these methods. The tests are not always conclusive in true carriers, since they may fail to show evidence of the carrier state in about 20 per cent.

Heterozygosity for X-linked mucopolysaccharidosis (Hunter's disease) and for the Lesch-Nyhan syndrome can be detected by fibroblast culture. Fibroblasts of heterozygotes reveal granules with characteristic staining qualities. Heterozygous carriers of the mutant gene for glucose-6-phosphate dehydrogenase (G-6PD) deficiency often show two red-cell populations that are distinguishable by special stains. Heterozygosity for G-6PD deficiency does not contraindicate reproduction. All that needs be done is to protect the male offspring from exposure to the hemolysing environmental factors (mothballs, primaquine and fava beans). Sterilization, or at least contraception, is indicated for conductors of the more severe XR diseases, notably X-linked muscular dystrophy (Duchenne type), mucopolysaccharidosis, Lowe's syndrome and the Lesch-Nyhan syndrome. In case of pregnancy it may be worthwhile to determine the nuclear sex of the fetus by amniocentesis. If the fetus is sex-chromatin negative, eugenic abortion may be considered, but if the fetus is sex-chromatin positive, there is no immediate reason for concern about the possibility of disease in the unborn child.

MULTIFACTORIAL (POLYGENIC) INHERITANCE: HEREDITARY PATTERNS OF VARIOUS COMMON DISORDERS AND MALFORMATIONS

Some traits and characteristics such as weight, height, blood pressure and intelligence, as well as various malformations, are determined by multiple minor genes. In addition, environmental factors may exert a modifying effect on the phenotypic appearance of a trait. Traits due to multifactorial inheritance show a continuous variation of phenotypic manifestations. This has been well demonstrated for the intelligence trait, notably if intelligence is expressed as IQ. If the IQ's of a large population are plotted, a continuous bell-shaped distribution curve is obtained. It is interesting, however, that the curve is asymmetrical in that there is a somewhat drawn-out lower left end. That phenomenon indi-

* According to the Lyon hypothesis one of the two X chromosomes of the female is functionally inactivated during interphase. In some cells one X chromosome, and in other cells the other X chromosome, is inactive. If the X chromosome which carries the mutant gene is active in many cells or in particular cells, the respective XR disease may become apparent, although only in a mild form.

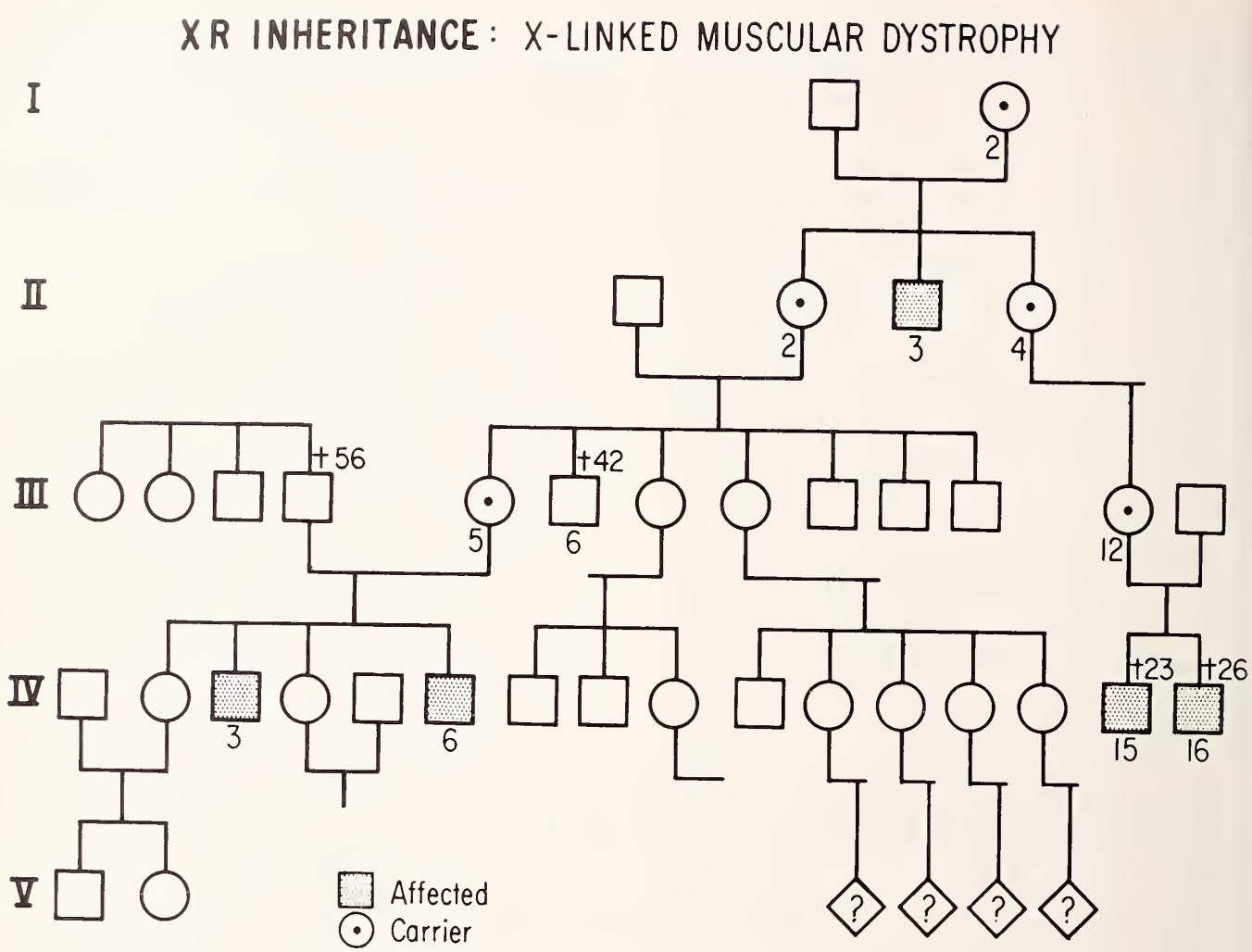


Figure 9. X-linked muscular dystrophy as an example of XR inheritance.

cates that mental subnormality is somewhat more frequent than one would expect if multifactorial inheritance were its only cause. Indeed mental subnormality has various causes. Among them are single-gene inherited conditions such as PKU and other inborn errors of metabolism and hereditary brain diseases, chromosomal aberrations and environmental factors such as brain injuries during prenatal, perinatal or postnatal life.

The bulk of cases of mental subnormality, however, belong in the category of so-called "familial mental retardation" due to multifactorial inheritance or cultural deprivation or both. The intellectual deficit here is generally less pronounced than in the other groups, the IQ often being near the lower limit of the normal range.

Predictions with respect to the intelligence of the offspring are difficult, and are limited to a few general statements: (a) a mentally subnormal parent has an increased risk of having a mentally subnormal offspring; (b) if both parents are mentally subnormal, the risk of subnormal children is considerable; and (c) polygenic traits tend to regress toward the mean; in other words, children of parents with familial mental retardation are, on the average, somewhat more intelligent than their parents.

Familial mental retardation due to multifactorial inheritance is clinically indistinguishable from mental subnormality due to cultural deprivation. Improvement of the social environment and better education opportunities are therefore mandatory for every case of familial mental retardation. Children whose low IQ's are due to cultural deprivation sometimes show astonishing improvement, whereas less convincing results are obtained in children with genetically determined familial mental retardation.

Many common diseases and abnormal conditions have familial tendencies. The mode of inheritance often does not follow one of the usual and well known transmission patterns.

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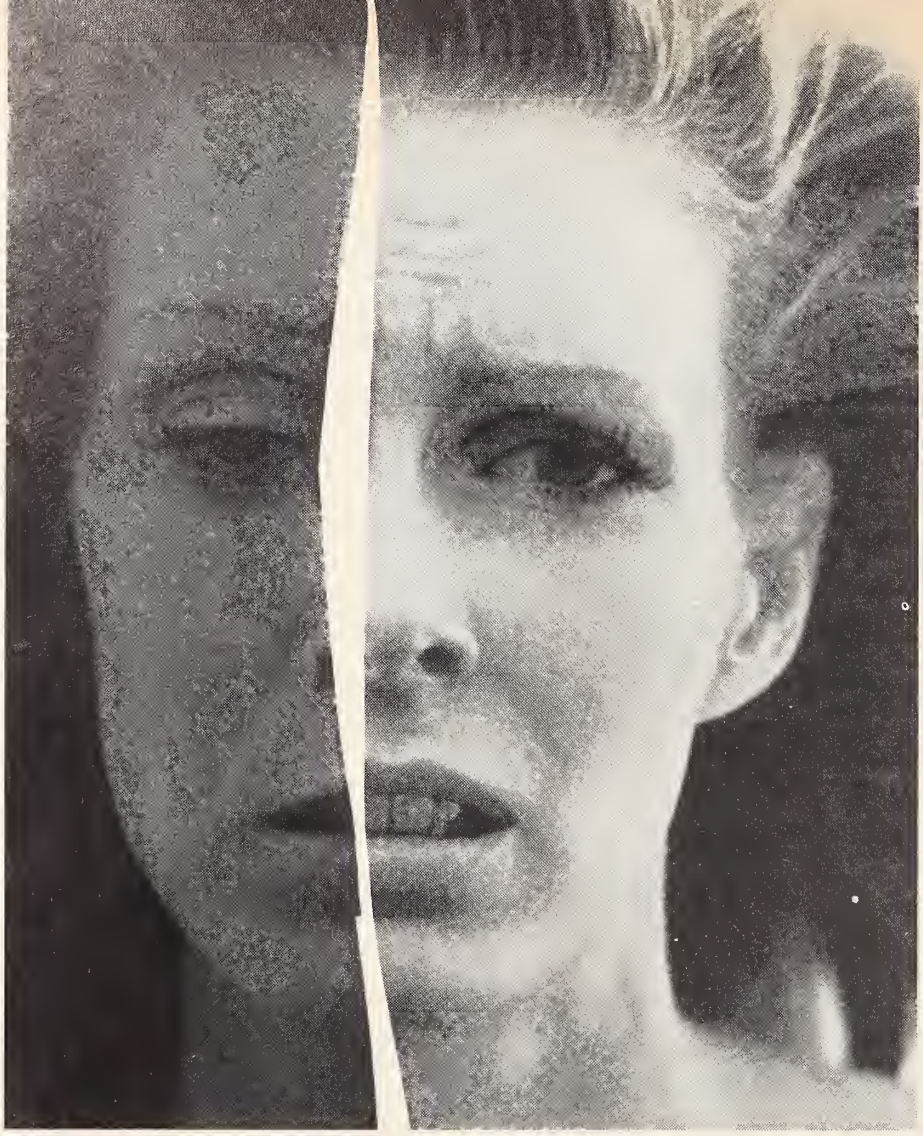
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Moreover, environmental factors may play an additional role in their causation. Therefore genetic risk frequently is not predictable, and has to be based on empirically-gathered observations.

The exact mode of inheritance in diabetes mellitus is still disputed. The disease develops sooner or later in about one or two per cent of our affluent and well-fed society. Diabetes in a parent or a sibling increases the incidence to five per cent for offspring or siblings, respectively. If both parents are diabetic, their children run about a 25 per cent risk of developing the disease. These high risk figures have not been confirmed by recent investigations. Dysplasia of the lower spine is an occasional finding in children of diabetic mothers.

Malformations are of heterogenic origin. Cleft lip and palate, for instance, can be due to environmental factors. They also occur as a symptom of a more complex malformation such as Pierre Robin syndrome, popliteal-pterygium syndrome, etc. It is found in various chromosomal aberrations, notably in trisomy 13 (80 per cent) and XXXXY syndrome (30 per cent). It is found less frequently in trisomy 18 and trisomy 21. Cleft lip and palate occur as an autosomal dominant trait (see Table 2), and finally, may be due to polygenic inheritance.

The genetics of the various malformations such as clefts, congenital heart lesions, anencephaly, meningomyelocele, clubfoot, etc. are beyond the scope of this presentation, but a few general remarks can be made. Parents who have children with congenital malformations frequently ask their doctor whether or not their subsequent children may have similar malformations. Whenever confronted with such a problem, one should attempt a thorough etiologic analysis before expressing any opinion. If the personal and family histories do not yield any clue as to a specific etiologic entity, one can say that if one child is affected with a given malformation and nobody else in the family shows a major malformation, the risk that a second child will have the same malformation is minor, although slightly higher than in the population at large. However, if two members of a family (parent and child, or two children) are affected, the risk of recurrence rises considerably. In such a case the couple should be referred to a geneticist for accurate information.

Examples. The incidence of meningomyelocele in the newborn population at large is one in 400. In families where one child is affected with meningomyelocele, the risk that a subsequent child will be born with the same malformation is about one in 50. The risk rises considerably—to about one in 10—when two previous children have been affected with the condition.

The incidence of cleft palate without cleft lip is about one in 2,500 (0.04 per cent); girls are somewhat more frequently affected than boys. The risk for a child's being born with cleft palate is about 3 per cent if a previous sibling had cleft palate, and 7 per cent if one of the parents had the same malformation. The risk rises to over 15 per cent for the child who has an affected parent *and* an affected sibling.

REMARKS CONCERNING COUNSELING IN GENERAL

In closing, I want to say that tact and understanding are indispensable for anyone who is asked for genetic advice. The counselor must know how people may react when they become aware that their child has a severe inherited disease or conspicuous malformation. When faced with such a tragedy, the family —notably the parents—have difficulty in recognizing the consequences fully. In the beginning they often are in a shock-like state. Many parents regard the arrival of a malformed child as a sign from the gods indicating that they have done wrong. It is of paramount importance to break such a line of thought at the very outset, and to replace it by an understanding of how malformations arise, and how easily errors can occur during the complicated development of the unicellular zygote into a multicellular human newborn.

It is well, as soon as possible, to arrange a session with both father and mother (sometimes also with the grandmothers) to correct such misapprehensions and misinterpretations. After the initial shock subsides, counseling and guidance are still needed. People show a great variety of reactions. Some—notably religious people—accept the situation. A few are able to make it into a challenging and enriching experience. Others are never able to accept it, and persevere in a state of sadness, resentment and even hostility. The counselor has to understand and take the personalities of his clients into account.

Genetic counseling, in other words, is a

highly individualized task, dependent not only on the individuality of the person seeking advice but also on the personality of the counselor himself.

Education About Sexuality

EVALYN S. GENDEL, M.D.
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"ADULT-ADOLESCENT HANG-UPS," the title of this segment of your program, probably applies more to adults than to adolescents and young adults. Parents and other "elderly" observers (supposedly those of us who are over 30) react to what is happening in youthful culture with a mixture of envy, shock, anger and true concern. In Marshall McLuhan and George Leonard's article "The Future of Sex," young people are quoted as saying that it is *their parents' generation* that is hung up about sex.[1] That judgment follows the pattern of another contradiction that I have heard from college students. When their elders complain about current fashions in hair styling and dress, and exclaim, "You really can't tell the boys from the girls!" the youngsters' response is: "Things are pretty sad if adults around us believe that clothes and the length of hair distinguish the sexes. *They* may not be able to tell the boys from the girls, but *we* can!"

These very adolescents and young-adults were, for a long time, the forgotten and neglected patients in medicine, and were presumed to be the healthiest segment of our society. In recent years a rising interest in adolescent medicine fostered the establishment of the walk-in clinic, which was intended to meet the special needs of that group, from acne and obesity to emotional distresses of many kinds. Much of the goal of such adolescent care has been the conservation of these young people's potential by reducing to the greatest degree possible the kinds of interfering impingements which might hinder that development. The emphasis has been not so much on chronic and acute medical conditions—although these have not been neglected—but rather on maintenance of health and prevention of severe problems in their critical period of life. Medicine has taken a positive approach—has undertaken to conserve this human potential—whereas, in contrast, society at large has exhibited an inordinate degree of curiosity and interest in the delinquent, suicidal, irrational and otherwise abnormal behavior of a small portion of the total youth group. This emphasis has been underscored by the pathological interest of adults in youth, by sensationalism in the press, and by other distortions and misrepresentations of youth problems. If one were to draw his conclusions from the pseudo-scientific journals (the popular magazines), he would be convinced that all female teenagers were pregnant or about to be, whether married or not; that all youths were using drugs; and that all of them were property-destroying dissenters. Hopefully there are many who are expressing themselves in new ways, but who do not always find that new ways are equated specifically with these manifestations.

Probably one of the areas that receive the most distortion and most misrepresentation is the young adult's sexuality—as though every older adult were no longer a sexual person or never had been, and certainly couldn't remember that he had. Young men and women's recognition of the need for openness and honesty in the area of sexuality has been equated at most with sexual promiscuity, and at least with sexual problems. Physicians often fall directly into the middle of this misunderstanding. They are called upon to serve as "expert counselors" on a one-to-one basis by worried parents, by the adolescents or young adults themselves, or by school officials or part-time educators who want them, as "experts" on the subject of human sexuality, to tell teachers what to teach in this area—or, even more astounding to have the doctors perform, them-

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selves, as teachers in public and parochial school classrooms!

Sexuality, under such circumstances, seems to be regarded as a disease entity, or as a pathologic condition of man. Many physicians are expert regarding human reproduction and about sexual anatomy and physiology, but those topics are not necessarily the total of what youths need to be taught about sexuality. Correct information on these subjects is helpful in dispelling misunderstandings which patients may have, or in answering the questions on which teachers involved in a program may wish clarification. But the emotional, psychological and intellectual aspects of human sexuality may or may not lie within the physician's competence.[2]

I hope that as a profession we can be open-minded about the physician's capabilities in these areas, and that we can refuse to categorize physicians in general as either "good" or "bad" sex counselors. Rather, we should see their capabilities as dependent on their interests, their backgrounds and their types of training. We should recognize that many who have become involved in this field have extended their education into the behavioral sciences, and even into the methodology and technology of education itself.

SEXUALITY SHOULD BE TAUGHT AS A MAJOR CONTEXT FOR ALL OF LIFE

Generally the physician finds himself best able to discuss the subject in contexts such as pregnancy, venereal disease, early marriage, homosexuality, criminal abortion, etc. He may believe that such problems can be solved by instruction in anatomy, physiology and reproduction alone. The educator also views such information as constituting tools for better decision-making, which in turn may lead to the elimination of "sex problems." I, too, hope that the formulation of accurate objectives and the providing of accurate information will establish a baseline for intelligent decision-making in the area of sexuality, but I hope that the goal will be much broader than just a decrease in the incidence of "sex problems."

One of my concerns is for a better understanding of one's own sexuality, and therefore a better understanding of self—leading to more comprehension of others, and especially to an insight into male and female roles in society. This means that both for a married person and for an individual who chooses to remain single there will be a foundation for coping with his own sexuality and an opportunity to lead a productive and fulfilling life. In society at large, the concern must be not only for the dramatic problems of the socio-sexual variety that most people are talking about, but also for the development of strengthened family units, for enabling children to develop to their own fullest potential, for *wanted* children, and for maturity in relationships. Our concern should lie with the ability of individuals to live together in reciprocal, mutually rewarding and respectful ways. Lack of this kind of empathy is an underlying cause for much of the distress in our current society.

What can we do about the young couples, 20 years of age and under, who have killed their own children under three years of age? Besides the babies who have died, many more —uncounted and unreported—have suffered severe physical and emotional damage at the hands of their immature, greatly-overstressed parents. Frequently these parents, even though children themselves, have two or three youngsters. I am distressed by other resentful parents who are married, though in many cases they had no firm intention of assuming family responsibilities immediately. In 50 per cent of cases, in some areas of the country, the brides were pregnant at the time of marriage, and their resentment does not result in outright abuse but nevertheless causes a long-term suppression of their children's full development. For parents between whom there is mutual neglect or disrespect, and who finally break up, leaving children in various states of disarray and chaos, or in the long run in foster-home confusion, there are real problems. We must be concerned also for the many more whose marriages merely exist—who have found a measure of happiness but whose personal sexual aspects of marriage have remained at a static level throughout the years.

These are the urgent reasons for including education about sexuality in the school curriculum—to provide comprehensive insight into one's own sexuality, to develop respect for oneself as a sexual person, and to develop a non-exploitative respect for others.

Apart from the definition of sex as something that people do, there is a truer definition that sex is what people are; they are male and female. Human beings should have as much information as possible about themselves. This means that our educational systems have a responsibility for providing careful planning, teacher preparation, and the infusing of dignity into the curriculum on sexuality, as well as for facilitating dialog-centered discussion and the best resources possible.

To oversimplify the school objective, one can say that knowledge is better than ignorance. Programs should neither distort nor ignore sexuality. Instruction about sexuality should not be made a "federal case"—a separate course, since the separation would itself say something to the student, implying that sexuality can be isolated from the rest of learning. Nor should it be lost in the shuffle on the grounds that "someone else will do it." Instead it should be built into an integrated program, geared to the successive levels of the child's understanding throughout the school years.

OTHER SEX "EDUCATION"

Relevant to current publicity and emphasis on the sexuality of the young is the sex education currently occuring in the environment. These are elements of sex education over which we exercise too little control. They include the "sex educations" which occur in the home, and which begin at the moment the infant comes into the family environment, and even begins when he is delivered. Many of us believe it begins prior to his delivery, in the developing attitudes of his parents toward parenthood itself. An unwritten or unread part of the marriage contract describes each parent as a sex educator, whether or not sex is ever mentioned in the home. The affectional climate in which the child is held and fondled, and the smell and touch of both the mother and the father help to determine the child's impressions of male and female, help him to appreciate himself as an individual and, further, as a sexual individual. Depending upon the parents' hopes for a male or for a female infant, there may be an early interpersonal conflict and ambivalent feelings about the child. Our culture concentrates on the gender of the unborn child more than any other culture. For some reason unrelated to the economic potential of the child, as might have been the case in other decades, families put a premium on one or the other of the sexes, and often the disappointment over the birth of a child of the wrong sex will influence the child's development. The infant's early impressions of the parents' attitudes toward each other, of their mutual respect or disrespect, of the manner in which other members of the family are treated—all of these help the child form his impressions of his own sexuality and the sexualities of others.

As his sexual development occurs, from early infancy, the perspective with which his parents view that development again influences the child's behavior and attitudes. Whenever he may wish to question or to let his parents know his desire for information or reassurance about his sexuality, they must be prepared to respond as openly and as readily as they would to questions that preschool children ask about the stratosphere and the space program. Strangely enough, parents respond much more readily and willingly to questions about the stratosphere or the Van Allen belt. Their children, at five years of age, can tell you what is being monitored in the space capsule, and have some concept of the exploration of space. Their questions in this area lead to responses from parents such as: "I don't know, but I'll look it up. Let's look it up together." Volumes of the WORLD BOOK are pulled from the shelves, the ENCYCLOPEDIA BRITANNICA is consulted, and popular books on such subjects are purchased in the hope that they will help to explain such phenomena. But let a child ask, "What's a virgin?" and parents are, at best, reluctant to answer. The adults' perspective is unrelated to the question which the child has asked. Their response is equally unrelated.

The impression that the child gets, after asking something of that sort, is that his question has been improper and is one that will not be answered honestly. Thus he learns a great lesson: *Don't ask your parents questions that make them appear uncomfortable.* This family life or home education forms the early impressions of sexuality, and helps to mold the child's standards, values, concern for others, understanding of or respect for the sexes, and other aspects of sexuality. Such

education can occupy any segment in a broad spectrum—from caring and nurturing to indifferent and abusive.

The most readily accepted sex education is that which young people receive from their peers. This is equally true of adults. Obviously what is said over the backyard fence, by neighbors, about the problems of divorce or homosexuality are far more interesting and "true" than what one may read in scientific journals in the fields of biology, theology, psychology or others of the behavioral sciences. The same is true for conversations between nursery-school children. Children believe firmly in the stories their peers tell them, and they become increasingly reliant on peer sources as they grow older and learn from their more mature friends. This is the education of the locker room, the playground, the backyard, the side hall—and for the older child, frequently, the back seat of a car. And I won't knock it, for it is part of the "real world." It will not go away; indeed it has always been with us. I don't advocate it as the best as regards accuracy or objectivity, but it is an important segment of the "sex educations" which occur.

A third type of sex education that is here to stay comes to us "from the blue"—through the air waves, the press and all of the other mass media. This is not to discredit the many fine presentations that have been made on issues having to do with sexuality and the other educational programs presented by the mass media. It does reflect upon advertising, however, which uses sex to sell everything from razor blades to automobiles. The sex-sell pervades the news media and the billboards. The impression is necessarily either vulgarized or idealized beyond reality. It really isn't true that everyone who smokes is beautiful, rich or talented, or owns horses, ranches and boats, or travels in the jet set. Nor, as some of the gossip headlines suggest, is every elderly marriage one of discouragement or extramarital affairs, nor are all teenagers up to their ears in promiscuous sexual behavior, *ad infinitum*. Such sex-saturation has very little relationship with a concern for human understanding, affection and love. Yet sometimes it is the only impression of human sexuality that certain children receive. These are the current operating forces.

ANOTHER OPTION?

Isn't there a fourth option—a fourth operating force which can be put into effect? It consists of programs that school systems can institute. Thoughtful attention must be given to the development of an ongoing program to acquaint the growing child with expectations about himself—with the ideals, standards and values of this society and the ones that he will fashion. Development of well-prepared teachers and other trained personnel, accumulation of resource libraries with materials available at all grade levels through dialog-centered education—these are possible and effective. The question is not *whether or not there will be* sex education; the questions are *what kind will it be* and *how will it be formulated and implemented.*

All fronts need help. Parents need additional education, and need to develop an understanding regarding their own sexuality and that of their children. Communities and churches can assist them. Teachers need programs early in their preparatory years in the teaching field. There must be support and backing for teachers, and in-service training opportunities for them related to human sexuality. School boards need to review materials carefully as they become available, working with the educators in their systems. They must maintain communication with their communities—not to seek their permission, but to keep people informed about the developing program and to utilize the resources which the communities offer. The approach probably will be different for each area or school district, depending upon the interests of the various people involved, the experience and knowledge of the educators, and their willingness to pursue a broadened scope of education. The task is formidable, but stable arms of support and leadership from school-board members, educators and parents can make it possible.

THERE ARE ATTEMPTS AT DISCREDITING FAMILY-LIFE AND SEX-EDUCATION PROGRAMS

Within recent months there have been widespread organized attempts to distort and misrepresent programs of education in human sexuality. Some people whose motives are not as yet well understood but who use fear, confusion, political innuendo, half-truths and other

radical techniques are attempting to curtail or abolish sex education in our schools. Although the objective is a new one, the tactics are similar to those that have been used in attempts at discrediting polio immunization, community mental health clinics, fluoridation and other such activities in previous years. An emotional, threatening technique is used to prevent parents from investigating the sex-education programs in their own communities, and to persuade them to condemn the programs sight-unseen.

In the NEW YORK TIMES, during the week of January 7, Mr. Robert Welsh announced that the goal of the John Birch Society is to abolish all sex education from the schools. He declared, "It is obviously a communist plot to demoralize youth by obsessing them with sex." Under this banner such groups as SOS (Sanity on Sex), PAUSE (Parents Against Unamerican Sex Education), MOTOREDE (Movement to Restore Decency) and many others have become loudly vocal in over 100 communities, nationwide.[3] They represent themselves as parents "spontaneously reacting" to a program. Instead, they are following specific and identical instructions sent to such groups everywhere.

Here is an example:

"We are forced to make up a form letter to keep up with requests for literature and directives on combatting "FAMILY LIFE EDUCATION" and "SENSITIVITY TRAINING." For further details or special requests, please specify "Research Department."

Dear (Fill in name of person to whom letter is directed to)

Almost all of the FAMILY LIFE EDUCATION programs are produced from material outlined in the *Teacher's Resource Guide* K through 12th Grades. This means that such material as "Time of Your Life" TV and "How Babies Are Made" slides (as well as other described evidence) may or may not be included in your particular program. These are just *two* of the visual aids out of *over 500 books, pamphlets, tapes, movies, etc.* that have been prepared for the wholesale indoctrination of our children. Therefore, our research department has been working on an in-depth investigation of all materials listed in the "over-all" Teacher's Resource Guides, and has come to the following conclusions:

1. That this program is intended as a national method of influencing our children away from the traditional Judaic-Christian ethical culture formulated by our Nation's Founding Fathers, toward a Humanist and Socialist approach in matters of Faith and Morals, as well as Political Science.

2. That the new political "activists" now controlling the National Education Association are largely responsible for the *dissemination and acceptance* of this controversial program through all of their associated school organizations, both public and parochial, thereby influencing local educators and school boards excessively.

3. That S.I.E.C.U.S. (Sex Information and Education Council of the U. S.) is the promotional agency, as well as the influencing "brain trust" comprising most of the writers or dictating their material."

The writers do not state where the "guide" is to be found (no identification of city or state is given). The books, movies and pamphlets are the ones in state health and education department libraries, as well as in the catalogs of most national health agencies such as the American Medical Association, the American Association of Health, Physical Education and Recreation, the Child Study Association, SIECUS, and many others. Most of the materials were developed 10 or 15 years ago, and have been updated continuously since that time.

The John Birch Society release continues:

"We are basing our campaign on the judgment that most educators are too "involved" because of their positions to be trusted to sacrifice expediency for principle. Unfortunately, many of our clergy and religions in the educational field have fallen into this same category . . . in order to qualify for the federal subsidies dangled before them for the first time. We must rely on the PARENTS, and those responsible citizens who are willing to challenge this intolerable program.

We suggest you SAVE YOURSELF THE FRUSTRATION OF APPEALING TO THE SCHOOL BOARDS—*GO DIRECTLY TO THE PEOPLE!* —TO THE PARENTS WHO CARE ABOUT MORALITY OF THEIR CHILDREN AND THE CONSTITUTIONAL AS WELL AS GOD-GIVEN DUTY TO UPHOLD IT! It is unfortunate, but NECESSARY that we must SUBJECT THEM TO THIS "SHOCK THERAPY" . . . IF ONLY TO PREVENT OUR CHILDREN FROM BEING INNOCULATED WITH IT INSTEAD.

WE SUGGEST:

1. PASS OUT WHATEVER LITERATURE YOU FEEL MOST EFFECTIVE FOR YOUR PARTICULAR SCHOOL OR DISTRICT.

2. DISTRIBUTE IT AT *EVERY* SCHOOL MEETING AND *EVERY* OPPORTUNITY.

3. HAND IT OUT DOOR-TO-DOOR. (DO *NOT* PUT IN MAIL BOXES—It is against postal regulations to put *anything* in mail boxes).

WE PROMISE YOU, THEY WILL DO THE REST. We've proved this in many cities, starting with our own and using Redwood City (The County School Board and headquarters for the Teacher's Resource Guide) as a "Test" city of our own. YOUNG PARENTS RESPONDED MAGNIFICENTLY . . . OVER 2,000 DEMANDED AND *GOT* ACTION. NOW THEY ARE WORKING ON "RECALLS" AND OTHER SCHOOL REFORMS."

In most areas where these tactics have been tried there has been much furor, but many sex-education programs have been supported by the vast majority of parents. In other localities, however, school personnel have been overwhelmed by the barrage of criticism in the newspapers (weeklies and local neighborhood sheets), and have pulled back from the program without rechecking with their local boards of education.

Now, the final quotation from the John Birch Society release:

"All of our literature is available at $12.00 per 1,000, mixed or matched (except the documentary booklets—they are 3 for $1.00). You have our permission to reprint it yourself if you can do it more cheaply, but we doubt you can unless you have a machine of your own. Most of our time and research is donated, and *NO ONE PROFITS —EXCEPT OUR CHILDREN,* WE HOPE. We also have the advice of our Attorney . . . for our concerted State effort . . . and eventually, we expect a SUPREME COURT TEST. Therefore, we desperately need legal contributions at all times.

CITIZENS FOR PARENTAL RIGHTS was formed *solely* for these purposes . . . to research and disseminate information . . . to correlate ideas and activities of other concerned parental groups . . . to collect funds for court actions that benefit all of our children . . . and to be able to sue if necessary.

Please stipulate if contributions are for "literature" or "Legal Fund."

Thank you, and God bless our efforts.

CITIZENS FOR PARENTAL RIGHTS
P. O. BOX 593
Belmont, Calif. 94002"

The letter that has been reproduced here (in part) typifies material that is being circulated to parents. At least 10 small communities in Kansas where *no* sex-education program was operating or being contemplated received hundreds of packets containing this letter and similar material.

In Oklahoma, where Sanity On Sex attempted to legislate against sex-education programs, the press headlines read: "30,000 Pornographic Anti-Sex Education Packets Distributed in Community." Indeed, the anti-sex education literature is obscene in itself!

These assertions, however, are by no means meant to reflect on the many honest parents who seek to look into programs, discuss materials with principals and teachers, and take a thoughtful, cooperative look at this and all other school programs. Such parents trust their administrators and educators, and value their professionalism as educators. Unlike the loud protesting group who direct people away from the school administrators, ministers, etc., such parents seek out those leaders and review their interests and concerns with them.

One of the most effective devices of the "aginners" is to suggest "a master communist plot" sponsored by any of the groups which have contributed to current knowledge on sexuality. The Sex Information Education Council of the United States (SIECUS) has been singled out for innuendo and distortion, along with the National Education Association, the American Medical Association, the Association for Health, Physical Education and Recreation, the Office of Education, the Congress of Parents and Teachers and many more, all of which over the years have been committed to the support of improved programs on family life, growth and development, health and sex education.[4] Since, at the close of World War II General Dwight Eisenhower was mentioned in the JOHN BIRCH BLUE BOOK, along with many other world leaders, as a major element in the world communist conspiracy, one cannot choose but believe that these groups place the label "communist" on anything and anybody that they disagree with.

Another tried method is the "canned rumor." One parent tells another, "The children in the first grade take off their clothes and feel each other, and then report on it." Although it may seem unlikely that anyone would believe such a report without checking on it, there are people who do, and who pass the story along. Many well-meaning people have called our office to ask whether we know that this is happening. When I ask the name of the school, ask the name of the principal and ask the name of the teacher conducting the class, invariably the answer is: "I didn't ask the person who told me." When I ask my informant to check

and call back again, unfailingly the answer is: "My friend wasn't sure; she just heard about it from her friend."

AND THEN WHAT?

What I suggest and hope that all of you, as respected citizens, will do when your friends, patients or others repeat such rumors in your hearing is to ask them where they got their information, and if possible learn the names of schools, teachers, etc. that are said to be responsible for such incidents. Second, when you are personally invited to give "one-shot" lectures on VD or sex in public schools, I suggest that you use the occasion as an opportunity to meet the faculty members and administrators, to review the breadth of their program, and to offer your assistance in developing a more comprehensive program.

Young people today are aware of many contradictions in our society. From the "double standard" to the Vietnam war, it is obvious that our deeds have fallen short of our aspirations. There are problems to be solved which need the combined best thinking of all generations. Holding back from open discussion in any one area such as sexuality multiplies the obstacles that we place in the way of free communication with one another, regardless of our ages.

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PARTIAL LIST OF ORGANIZATIONS SUPPORTING EDUCATION ABOUT SEXUALITY

American Academy of Pediatrics
American Association for Health, Physical Education and Recreation
American College of Obstetricians and Gynecologists (Committee on Maternal Health)
American Medical Association
American Public Health Association (Governing Council)
National Congress of Parents and Teachers
National Council of Churches
National School Boards Association and American Association of School Administrators (Joint Committee)
National Student Assembly, YMCA & YWCA
Sixth White House Conference on Children and Youth
United States Department of Health, Education & Welfare (U. S. Commissioner of Education)

Clinical Approach to Heart Murmurs Heard During a Pre-Football Examination

ROBERT E. DURNIN, M.D., and
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IN THE PEDIATRIC AGE GROUP, congenital heart disease predominates over all other forms. In many instances the cardiac defect is detected while the patient is still an infant or upon his entrance into elementary school. However heart-sound screening studies have shown that approximately 45 per cent of heart disease cases in the elementary school population have previously gone unrecognized.[1, 2] The incidence of heart disease in elementary school children is five cases per thousand.[3] In adolescence the incidence is six cases per thousand.[4] The commonest congenital heart defect seen in the pediatric age group is ventricular septal defect, alone or in conjunction with pulmonic stenosis.[5] The other defects, in order of their frequency, are patent ductus arteriosus, atrial septal defect, aortic valvular stenosis, pulmonary valvular stenosis and coarctation of the aorta. Of the defects causing cyanosis, tetralogy of Fallot is the commonest.

In the adolescent age group, chronic heart disease has become less common for two major reasons. With the decline in rheumatic fever there has been a decrease in rheumatic heart disease. Since the advent of cardiac surgery the majority of patients with operable

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congenital heart defects have had either corrective or palliative surgery prior to reaching adolescence.

The mortality rate from heart disease in the school-age population is significantly lower than during early infancy. In most instances death secondary to heart disease in the school population will be anticipated because of the severity of the lesion. However sudden death secondary to acute myocarditis, chronic cardiomyopathies, Ebstein's anomaly, severe aortic stenosis and pulmonary hypertension are ever with us.

Each fall thousands of prospective high school athletes are examined to determine whether it is safe for them to participate in competitive sports. The detection of a heart murmur raises the possibility of organic heart disease in an otherwise healthy adolescent. Because of this possibility many physicians forbid these young men to participate in sports because of their uncertainty regarding the significance of the murmur, and the possibility that sudden death may ensue.[6]

Heart disease in pediatrics is most often associated with a significant murmur. The detection of heart disease lies in differentiating these significant heart murmurs from the common innocent ones encountered in pediatrics. The electrocardiogram and chest roentgenograms as isolated examinations have limited value in the detection of heart disease.[7]

How does one approach a newly-heard heart murmur in an otherwise healthy adolescent? Beginning with the history, one is obligated to inquire whether there is a family history of congenital or rheumatic heart disease. A history of sudden death in young members of a family may give a clue to the possibility of a familial cardiomyopathy. General physical examinations should begin with measurement of blood pressure, and an assessment of the quality and volume of the peripheral pulses. Absent or diminished femoral pulses indicate the presence of coarctation of the aorta, which can go unrecognized into adolescence. There can be extreme lability of the auscultated blood pressure in this age group, but the blood pressure measurements at rest should be no greater than 130 mm. Hg systolic and 85 mm. Hg diastolic. Inspection of the general body habitus may reveal external signs of congenital heart disease. General inspection of the precordium, followed by palpation, can be helpful in determining whether there is over-accessibility of the ventricles or whether a thrill is present. Prominence of the anterior thorax is often associated with cardiac enlargement. The presence of a palpable thrill signifies an underlying loud intracardiac murmur.

INNOCENT MURMURS

Innocent murmurs are common in pediatric patients. They have also been termed functional or physiologic, and are auditory vibrations which can be heard in 80 per cent of individuals examined. Innocent murmurs are defined as sounds originating in the heart and perceived through the stethoscope, but unassociated with organic heart disease. The detection of a murmur will be dependent on the amount of ambient noise, on the physician's hearing acuity and on the patient's cooperation. Adequate auscultation is dependent on the use of a good stethoscope. Clinically, all murmurs are described with relation to their (1) *timing* (systolic or diastolic); (2) *intensity* (loudness grades 1-6); (3) *quality* (harsh, musical, etc.); (4) *frequency* (high, medium or low-pitched); (5) *configuration* (diamond-shaped, crescendic, decrescendic); and (6) *duration* (holosystolic, mid-systolic). Diamond-shaped murmurs have also been described as stenotic or ejection murmurs. Likewise, the area of maximal loudness of the murmur over the precordium is recorded. There is no one descriptive classification of murmurs that all clinicians accept. For practical purposes we record timing and intensity along with some comment regarding configuration, quality and duration (e.g., a Grade II systolic ejection murmur, or a Grade III harsh holosystolic murmur).

Innocent murmurs are classically described as having less than a Grade III intensity on a scale of I-VI. Most innocent murmurs are Grade I-II in intensity and are diamond-shaped. A Grade I murmur is faintly audible when the stethoscope is applied to the precordium. Grade II murmurs are readily audible, and a Grade IV organic murmur is associated with a palpable thrill. Innocent murmurs also vary with the patient's position and respiration, and they increase in intensity with exercise, fever and anxiety. They are best heard with the patient

in the supine position, and they may vary from examination to examination. They occur in systole when the ventricles contract.

The only diastolic sound which is normal in children is the relatively common third heart sound. This low-intensity sound is best heard with the bell of the stethoscope at the apical area, and it can often be accentuated when the child is in the left lateral position.

Innocent murmurs are associated with a normal first heart sound, and normal intensity and splitting of the second heart sound (aortic-pulmonic valve closure). In addition, the chest roentgenogram and electrocardiogram are normal.

These murmurs may be heard maximally over several areas of the chest. One of the commonest areas is at the 4th-5th left intercostal spaces. This is the so-called Still's murmur or "zoot" murmur. It is a short-duration, systolic, diamond-shaped or ejection murmur which is described as groaning, vibratory or musical in quality. It may radiate faintly to the apex and over the base of the heart. It is loudest with the patient in the supine position, and it is often obliterated by a Valsalva maneuver. A second area is over the 2nd-3rd left intercostal spaces. This short-duration, systolic, diamond-shaped or basal ejection murmur is not widely transmitted, and usually is not heard over the back. It is frequently heard in thin-chested individuals. A third area is over the carotid vessels, and less prominently over the 1st and 2nd right intercostal spaces. This

TABLE I

ROENTGENOGRAPHIC, ELECTROCARDIOGRAPHIC AND AUSCULTATORY FINDINGS IN ADOLESCENTS

	CHEST X-RAY			MURMUR CONFIGURATION Systole Diastole	
	HEART SIZE	VASCULARITY	EKG	S1 S2	MURMUR INTENSITY
PATENT DUCTUS ARTERIOSUS Small	N	N to ↑	N		2-4
PATENT DUCTUS ARTERIOSUS Large	N or ↑	↑	LVH		
VENTRICULAR SEPTAL DEFECT - Small	N	N to ↑	N or occ LVH		2-4
VENTRICULAR SEPTAL DEFECT - Large	↑	↑	LVH or CVH		3-4
ATRIAL SEPTAL DEFECT	N to ↑	↑	mild RVH		2-3
PULMONIC STENOSIS Mild	N	N	N		2-3
PULMONIC STENOSIS Moderate	N	N	mild RVH	ec	
PULMONIC STENOSIS-Severe	N to ↑	N	severe RVH	ec	3-4
AORTIC STENOSIS-Mild	N	N	N or occ LVH	ec	2-3
AORTIC STENOSIS-Mod. Severe	N	N	LVH or occ N	ec	3-4
COARCTATION OF THE AORTA (absent femoral pulses)	N	N Rib Notching	N or LVH		1-3
INNOCENT MURMUR	N	N	N		1-2 occ >2

N: Normal
LVH: Left Ventricular Hypertrophy
CVH: Combined Ventricular Hypertrophy
RVH: Right Ventricular Hypertrophy
↑: Increased
ec: Ejection Click

murmur may often be obliterated by compressing the right subclavian artery or hyperextending the right arm. The murmur has been referred to as a supraclavicular bruit.

The cervical venous hum is a relatively common finding in small children, and is not uncommon in teenagers. This continuous (systolic and diastolic) swishing sound is best heard over or just under the right clavicle, but it may be heard bilaterally. The venous hum is heard with the patient in a sitting position. Occasionally a thrill is palpable over the jugular vein. The venous hum can often be obliterated by compressing the jugular vein. Although the hum may be quite loud with the patient in a sitting position, it disappears when he is placed on his back. Contrastingly, the continuous murmur of a patent ductus arteriosus or an arteriovenous fistula is heard with the patient in either the supine or the sitting position. The swishing sound is the result of turbulence in the jugular veins, and is of no hemodynamic consequence.

Finally, in husky young athletes who have no organic heart disease there frequently are clinical findings of moderate systolic hypertension with normal diastolic pressures, bradycardia, full bounding pulses and a Grade II or occasionally a Grade III (with exercise) systolic murmur along the left sternal border and over the base of the heart. These findings have been termed "the hyperkinetic heart syndrome"[9] or "the athletic heart syndrome." Restriction from competitive sports is not indicated in such instances. The shaded areas in Figure 1 indicate where these innocent murmurs are maximally audible over the precordium. The chest-roentgenogram and electrocardiogram findings are shown in Table 1.

SIGNIFICANT MURMURS

Although approximately 80 per cent of the murmurs detected for the first time during preathletic examinations are hemodynamically insignificant, a small number are significant, and indicate previously unrecognized congenital or rheumatic heart disease. In most instances such patients are asymptomatic.

A decrescendic diastolic blowing murmur produced by aortic-valve regurgitation, or an apical blowing murmur caused by mitral regurgitation suggests the possibility of a previous rheumatic carditis or congenital abnormalities of these valves.

Most congenital cardiac defects are discovered before the patients reach high school age. Certainly most of the lesions causing cyanosis are recognized early, but the acyanotic lesions which often are unassociated with symptoms may not be detected until adolescence.

Six common acyanotic congenital cardiac defects are seen in the pediatric age group. Three are associated with a left-to-right shunt, and three cause obstruction somewhere in the heart or great vessels. Those that allow a left-to-right shunt are ventricular septal defect, patent ductus arteriosus and atrial septal defect.

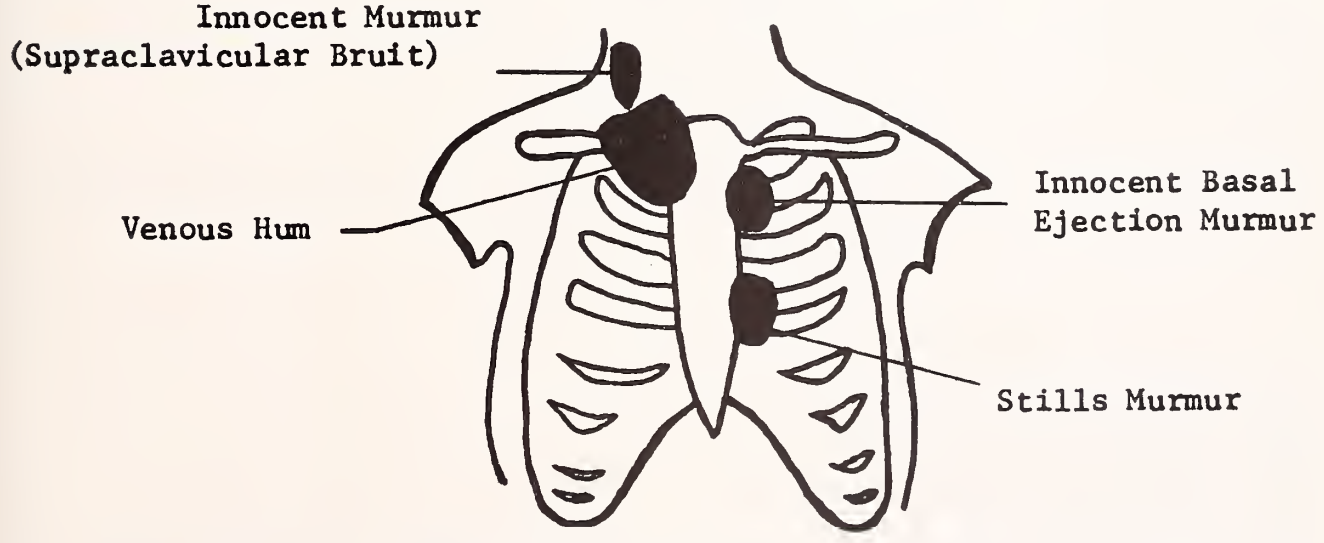


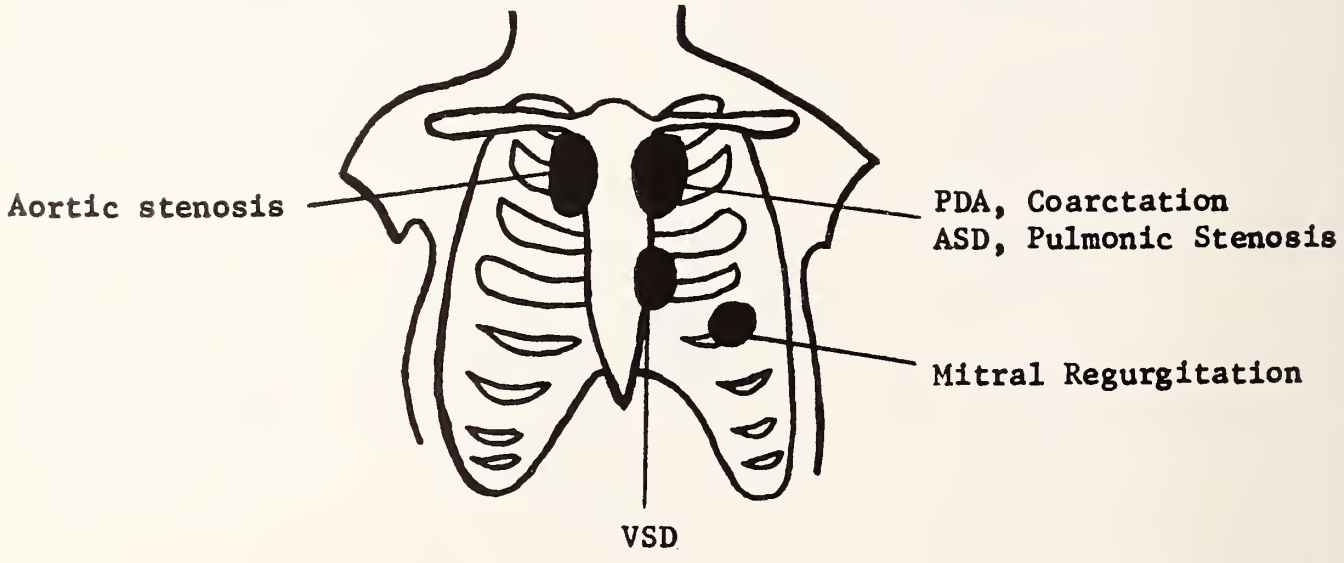
Figure 1. The shaded areas indicate where "innocent" murmurs are maximally audible over the precordium.

The commonest left-to-right shunt lesion is the ventricular septal defect. One recognizes it clinically by noting the presence of a harsh, Grade II-IV holosystolic murmur maximally evident at the lower left sternal border. Frequently there is a palpable thrill at the area of maximal intensity of the murmur. When the defect is small, with a minimal left-to-right shunt, the second heart sound is normally split and of normal intensity. No diastolic murmurs are present. The chest x-ray shows the heart size to be normal, and the pulmonary vascular markings may be normal or mildly prominent. The electrocardiogram is usually normal, but it may occasionally show mild left-ventricular hypertrophy.

When the ventricular septal defect is large, in addition to the systolic murmur just described, an associated diastolic low-intensity murmur is audible when the bell of the stethoscope is placed over the apical area. This diastolic murmur signifies an increased flow of blood across the mitral valve secondary to the large left-to-right shunt, and an increased volume of blood in the left atrium. The chest roentgenogram shows an increase in heart size, and an increased prominence of the pulmonary vascular markings. The electrocardiogram shows left ventricular hypertrophy or even combined ventricular hypertrophy. At the present time surgery is not indicated for very small ventricular septal defects, but patients with moderate to large left-to-right shunts do need surgical closure.

A patent ductus arteriosus is characterized by a continuous murmur (systolic and diastolic) that is heard best at the 2nd left intercostal space. This crescendic—decrescendic murmur obliterates the second heart sound in this area. If the patent ductus is relatively large, the pulses will be full and bounding, and the pulse pressure will be wider than normal. The chest roentgenogram and the electrocardiogram reflect the magnitude of the left-to-right shunt. If a patent ductus arteriosus is recognized clinically, we believe that surgical intervention is indicated.

An atrial septal defect is characterized by a systolic, diamond-shaped or ejection murmur which is heard maximally at the 2nd and 3rd left intercostal spaces. This murmur may be heard well over the base of the heart and is also audible over the back. There is wide splitting of the second heart sound, and often the splitting is constant. Because of the left-to-right shunt, there is increased flow across the tricuspid valve, producing an early diastolic murmur which is heard best with the bell of



PDA: Patent Ductus Arteriosus
ASD: Atrial Septal Defect
VSD: Ventricular Septal Defect

Figure 2. The shaded areas indicate where the murmurs of six congenital heart lesions are heard maximally over the precordium.

the stethoscope at the lower left sternal border. On palpation, overactivity of the right ventricle is commonly felt in the parasternal area. The chest x-ray shows increased heart size, and there is an increase in the pulmonary vascular markings. Often the main pulmonary artery segment is prominent. The electrocardiogram uniformally shows mild right-ventricular hypertrophy. When an atrial septal defect is suspected clinically, cardiac catheterization studies are planned, and subsequent surgical closure of the defect is anticipated.

The three obstructive congenital cardiac defects are (1) valvular pulmonic stenosis, (2) aortic valvular stenosis, and (3) coarctation of the aorta.

Clinically, pulmonary-valve stenosis is recognized from the presence of a harsh Grade II-IV systolic, diamond-shaped or ejection murmur which is heard maximally at the 2nd and 3rd left intercostal spaces. A systolic ejection click which varies with respiration is common. Frequently a thrill can be felt over the 2nd left intercostal space, and also at the suprasternal notch. This murmur is widely transmitted over the base of the heart, and may be heard in the carotid vessels and over the upper back. The loudness and the duration of the murmur give a clinical clue to the severity of the stenosis. Splitting of the second heart sound widens in relationship to the severity of the stenosis. The pulmonary component of the second sound also diminishes in intensity as the severity increases. If the stenosis is mild or moderate, the chest x-ray will be normal except for a mild prominence of the pulmonary-artery segment. The electrocardiogram usually reflects the severity of the stenosis. It is normal when the stenosis is mild, and it shows marked right-ventricular hypertrophy when the stenosis is severe. At the present time youngsters who have mild to moderate pulmonary-valve stenosis are not thought to need surgical intervention. Surgery is recommended only for those who have moderately severe or severe pulmonary-valve stenosis.

Aortic-valve stenosis is indicated by a harsh systolic ejection (diamond-shaped) murmur, heard maximally at the 2nd right intercostal space. This murmur transmits well to the carotid vessels and down the left sternal border, and is also audible over the back. Often a constant systolic ejection click can be heard at the apical area and along the lower left sternal border. On palpation, a thrill can frequently be felt at the 2nd right intercostal space and at the suprasternal notch. The chest roentgenogram is most often normal, but it may show prominence of the ascending aorta. In patients with moderately severe or severe aortic stenosis the electrocardiogram usually shows left ventricular hypertrophy. However there may be a significant gradient across the aortic valve though the electrocardiogram still is normal. At the present time surgical intervention is recommended when there is a severe narrowing of the aortic valve.

Coarctation of the aorta can be recognized on the basis of diminished or absent femoral pulsations. This defect should be suspected when there is systolic hypertension in the upper extremities. Auscultation of the heart will reveal a crescendic systolic murmur that is best heard at the upper left sternal border and transmits well over the left shoulder. Frequently the continuous murmur of collateral vessels is clearly audible over the vertebral borders of the scapulae. Usually the chest x-ray shows a normal-sized heart and normal pulmonary vascular markings. In the older child, rib notching may be present. The electrocardiogram may be normal, or may show evidence of left ventricular hypertrophy. When coarctation of the aorta is suspected clinically, we advocate cardiac catheterization studies to define the exact site and extent of the obstruction, and to rule out other cardiac anomalies. Surgical resection of the area of the coarctation is indicated in most of these patients. The shaded areas in Figure 2 indicate where the murmurs of these six congenital heart lesions are heard maximally over the precordium. The chest roentgenogram, electrocardiographic findings and auscultatory findings are summarized in Table 1.

DISCUSSION

A newly discovered heart murmur in an otherwise healthy adolescent does not necessarily indicate severe heart disease or a need for restricting his activities. For an adequate evaluation of the significance of the murmur a thorough physical examination should be done, and a chest roentgenogram and an electrocar-

diogram obtained. Consultation with a pediatric cardiologist can be helpful. Murmurs that are deemed innocent after full evaluation require no further follow-up or restriction of activities. It becomes apparent, indeed, that forbidding athletics to an adolescent with only an innocent murmur can produce crippling secondary to iatrogenic heart disease![9]

Young people who have newly recognized rheumatic heart disease should be placed on continuous daily prophylactic penicillin or sulfadiazine, and additional antibiotic coverage is indicated for them during febrile illnesses, elective surgery and dental procedures as a precaution against bacterial endocarditis. This latter recommendation is also appropriate for teenagers with congenital heart disease.

When congenital heart disease is discovered in this age group, further evaluation is indicated to define the significance of the cardiac defect. If the findings are significant, then surgery will be recommended.

If the congenital or rheumatic heart disease is found to be no more than mild, then no activities, including competitive sports, need be forbidden. However prolonged, strenuous exercise and competitive sports should not be permitted to patients who have significant heart disease—be it congenital heart disease or rheumatic heart disease in any adolescent, or significant residual murmurs, myocardial disease, or recent pericarditis in postoperative patients.

SUMMARY

Innocent murmurs are common in adolescents. Cardiac evaluation should include a chest roentgenogram and an electrocardiogram. If the murmur is innocent, no further evaluations are indicated and no restrictions of activities are necessary.

Restriction of activities on the basis of a murmur only can often create iatrogenic heart disease!

Young people who have newly discovered organic heart disease should have further evaluation to determine its severity. If the findings are significant, surgery is to be anticipated. In mild forms of heart disease surgery is not indicated, and physical activity patterns should be established according to the nature and severity of the cardiac lession. In many instances of mild heart disease, full and unrestricted activities can be allowed.

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Sterazolidin is valuable in the treatment of acute rheumatic conditions so often refractory to routine therapy. However, it is a potent drug, not a simple analgesic. Therefore, Sterazolidin should never be administered casually. For complete details on dosage, adverse reactions, contraindications and precautions, please see the following two pages.

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magnesium trisilicate	**150 mg.**

Antiarthritic
Anti-Inflammatory

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Important Note Butazolidin, brand of phenylbutazone, and prednisone, the active ingredients of Sterazolidin, are both potent drugs; the pharmacologic action of each should be borne in mind when Sterazolidin is prescribed. Sterazolidin combines anti-inflammatory, analgesic, antipyretic, and antiallergic properties and cannot be considered a simple analgesic and should never be administered casually. The usual warnings, precautions and contraindications associated with Butazolidin, brand of phenylbutazone, therapy and steroids apply to Sterazolidin.

Indications: *Chronic treatment of:* rheumatoid arthritis, rheumatoid spondylitis, osteoarthritis; and also treatment of acute rheumatic conditions such as bursitis, synovitis, tenosynovitis, various forms of acute fibrositis, and acute gouty arthritis.

Contraindications
Usually absolute: active, questionably healed or suspected tuberculosis, herpes simplex ophthalmia, acute psychoses or severe psychoneuroses, history of blood dyscrasia, the frankly senile patient, and active peptic ulcer.

Relative: exanthematous diseases, particularly varicella and fungal diseases (for other viral diseases, the physician must weigh the possible undesirable effects against anticipated clinical improvement), diverticulitis, recovery phase after gastrointestinal surgery, any condition complicated by cardiovascular disease, renal insufficiency, moderate or severe diabetes mellitus, thrombophlebitis, osteoporosis, convulsive disorders, thyroid disease, history of drug allergy, history of peptic ulcer, hypertension, the elderly patient, psychotic tendencies, pregnancy, except in severe disease (the safety of Sterazolidin in pregnancy has not been established), edema, and hepatic damage.

Its use in conjunction with other potent chemotherapeutic agents may greatly increase the possibility of toxic reaction, and this practice is, therefore, inadvisable. Large doses are contraindicated in patients with glaucoma.

Warning Coumarin-type anticoagulants depress prothrombin activity. This is accentuated in some cases when Butazolidin, brand of phenylbutazone, is simultaneously employed in treatment; occasional instances of severe bleeding have been reported. Patients receiving coumarin-type anticoagulants should be very carefully followed for evidence of excessive increase of prothrombin time when Sterazolidin is added to this regimen. Anticoagulant therapy can then be properly adjusted, if necessary. When prescribed alone, Sterazolidin has not been shown to influence prothrombin activity. Persistent or severe dyspepsia may be indicative of peptic ulceration. In these instances, upper gastrointestinal x-ray diagnostic tests should be performed if the drug is continued. Pyrazole compounds, such as phenylbutazone, may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Patients receiving such concomitant therapy, therefore, should be carefully observed for this effect.

Precautions and Adverse Reactions *Gluco-Corticoid Activity:* In some diabetic patients on prednisone, the insulin requirements may be increased. It is advisable to observe diabetic patients carefully during the treatment period. Since gluco-corticoids may unmask latent diabetes, all patients should be observed for this effect.

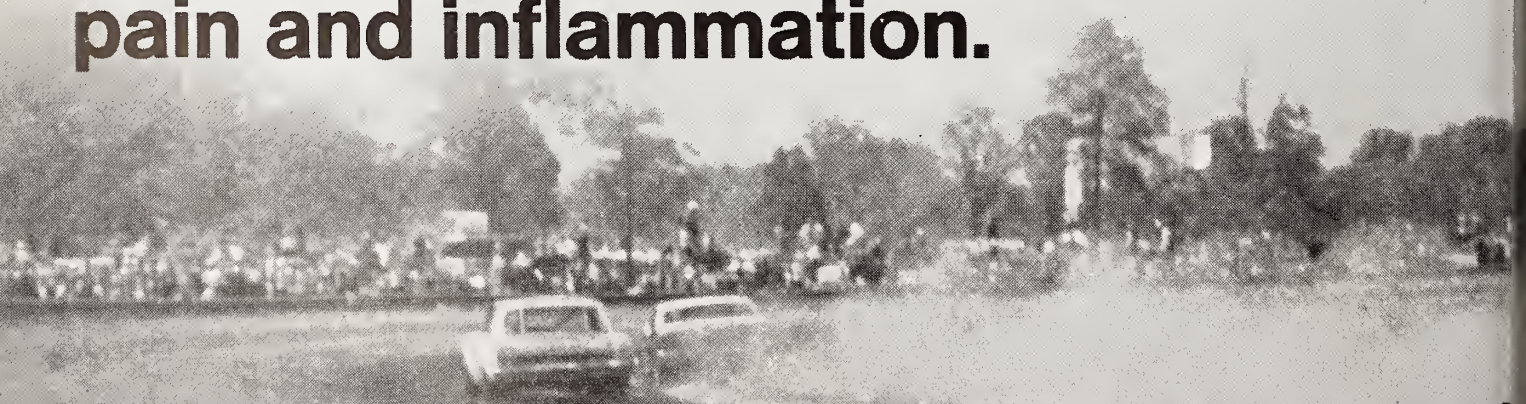
Electrolytes: Many patients receiving prednisone in average amounts show some loss of sodium, with little or no loss of potassium. With continued high dosage, however, sodium retention and potassium loss have been observed. Butazolidin, brand of phenylbutazone, has a definite tendency to produce sodium retention and hence, edema, particularly in the older age group. Elderly patients or those with hypertension, cardiac defect or renal dysfunction should therefore use Sterazolidin with special caution and the drug should be discontinued if edema develops. Developme of edema may be prevented or minimized withholding salt from the diet. Sodium ret tion may be counteracted with oral diuret

Nitrogen: With the recommended dosage Sterazolidin, the possibility of nitrogen lo remote. However, it is recommended that tients receive adequate protein in their di Osteoporosis or spontaneous fractures m occur with prolonged use of prednisone.

Gastrointestinal Tract: Clinical and anima studies do not indicate that the ulcerogen activity of prednisone or Butazolidin, brar phenylbutazone, is enhanced in the comb tion. To overcome gastrointestinal discon and occasional eructation in sensitive pa the medication is best taken at mealtime with milk; Sterazolidin contains antacid c ponents to minimize the incidence of gas complaints. All patients should be warne report immediately the occurrence of bla tarry stools. The development of anemia immediately suggest gastrointestinal blee

Blood Elements: Patients receiving predr exhibit an eosinophil response similar to seen with other steroids. During the initia weeks of treatment, Butazolidin, brand of phenylbutazone, usually causes some de of hemodilution and resultant lowering of red cell count. This phenomenon does no represent a true anemia and is not indica of intolerance, but must be distinguished true anemia secondary to gastrointestinal bleeding or other causes. With the extens use of Butazolidin, brand of phenylbutazc rare cases of agranulocytosis have occur (ratio less than 1 per 200,000 patients). It should also be noted that agranulocytosi occur suddenly in spite of regular, repeat normal white counts. Several cases of leu kemia and leukemoid reactions have bee reported with Butazolidin, brand of pheny butazone, therapy. Although these reactic cannot be definitely attributed to this dru possibility of a causal relationship canno excluded. It should also be recognized th arthritic-type pains are sometimes the pr ing symptom of leukemia. Accordingly, al patients receiving Sterazolidin should ha

It's aggressive against acute arthriti pain and inflammation.



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ne periodic blood counts before and
ıg therapy. Any unexpected, significant
ge in the total white count, relative de-
se in granulocytes, or appearance of
ature forms should be regarded as a signal
nmediate cessation of therapy and institu-
of appropriate countermeasures. Thrombo-
penic purpura and aplastic anemia must
be considered possible side effects of
apy with Butazolidin, brand of phenyl-
zone.

ss: *Surgery:* Prolonged use of prednisone
cause a potentially critical degree of
nocortical insufficiency which may persist
after cessation of prednisone therapy.
efore, if a patient is subjected to signifi-
stress, such as surgery or trauma, either
ıg Sterazolidin therapy or within one year
cessation of therapy, it is advisable to
inister additional steroid and/or ACTH for
luration of the stress. Delayed wound
ing may also occur in patients on pro-
ed therapy.

ctions: High or prolonged doses of
nisone interfere with the usual immune
hanisms against bacterial and viral infec-
s and may promote their dissemination. In
eral, steroid treatment should not be given
e presence of infections unless appropri-
ntibiotic therapy is instituted at the same
. Systemic and localized infection compli-
ons during hormone therapy have been ob-
ed, including fulminating pneumonia,
rculosis, moniliasis and aspergillosis.
uld intercurrent infection develop, indi-
d antibiotic therapy must be initiated
nptly. Every patient who is to receive
azolidin for any length of time should be
oughly examined, including chest x-ray,
he presence of pulmonary or extrapulmo-
tuberculosis.

nonal Imbalance: Gluco-corticoids, in pro-
ed dosage, may cause manifestations of
ercortisonism or Cushing's syndrome, such
noonface, abnormal fat deposits, mental
urbances, muscle weakness and atrophy,
neous striae, acne, ecchymoses, hirsutism,
strual disturbances, edema, osteoporosis
spontaneous fractures, and hypertension.
, by suppressing adrenocortical function,
nic prednisone therapy may cause some
ree of atrophy of the adrenal glands. There-
, if Sterazolidin is to be discontinued, the
oid dosage should be tapered off gradu-
ally. In addition, it may be advisable to stimulate the adrenal glands with ACTH. Prednisone induces a prompt decrease in the urinary 17-ketosteroids. Pretreatment levels are usually regained within 7 to 14 days after cessation of therapy. Under conditions of long-term administration, a small percentage of patients on phenylbutazone may develop varying degrees of reversible thyroid hyperplasia.

Allergic Response: Development of drug rash should alert the physician to promptly discontinue the drug. The presence of prednisone in Sterazolidin may reduce the degree of allergic response; nevertheless, the same cautious attitude must be preserved with Sterazolidin as with Butazolidin, brand of phenylbutazone, if allergic manifestations occur. Other adverse reactions that have been observed with glucocorticoid therapy include: excessive appetite and weight gain, hyperidrosis, pigmentation, dry,scaly skin, thinning scalp hair, tachycardia, thrombophlebitis, headache, neuropathy (including paresthesias and neuritis), diffuse vasculitis similar to periarteritis nodosa, subcapsular cataracts, impaired renal function, lupus erythematosus-like changes, convulsions, insomnia, abdominal distention, aseptic necrosis of the femoral head, acute pancreatitis and ulcerative esophagitis.

Miscellaneous: Stomatitis and, rarely, salivary gland enlargement occasionally require the interruption of treatment with Butazolidin, brand of phenylbutazone. Adoption of a lower dosage schedule and the institution of strict oral hygiene sometimes prevent recurrence of lesions. The infrequent occurrence of such subjective sensations as vertigo or languor during therapy with Butazolidin, brand of phenylbutazone, is seldom a serious or significant complication. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hepatitis and jaundice, hypersensitivity angiitis, pericarditis and several cases of anura and hematuria. Patients should be carefully evaluated before treatment is started and those receiving Sterazolidin must remain under close medical supervision to guard against undesirable reactions such as those described. They should be instructed to report immediately the occurrence of fever, sore throat, lesions in the mouth, or black or tarry stools. It is recommended that periodic examinations of the patient include:

1. Verbal and physical examination, including blood pressure and appraisal of the cardiovascular, digestive and skeletal systems, for indications of toxic reaction.
2. Complete blood count (at weekly intervals during the first month), urinalysis, x-ray and electrolyte studies, as indicated.
3. Check of patient's weight to detect significant water retention.

Dosage Dosage should be individualized. The following general rules should be observed:

In acute therapy, dosage *should not exceed* 12 capsules on the first day and 6 to 8 capsules on succeeding days. Treatment for more than 7 days is rarely necessary. When therapy extends beyond one week, dosage should not exceed 6 capsules a day.

In chronic therapy, dosage *should not* exceed 6 capsules a day and should be tapered off gradually to establish the minimum maintenance level at which the patient still feels reasonably comfortable. A trial period of one week of therapy is considered adequate to determine the therapeutic effect of the drug. In the absence of a favorable response, therapy should be discontinued.

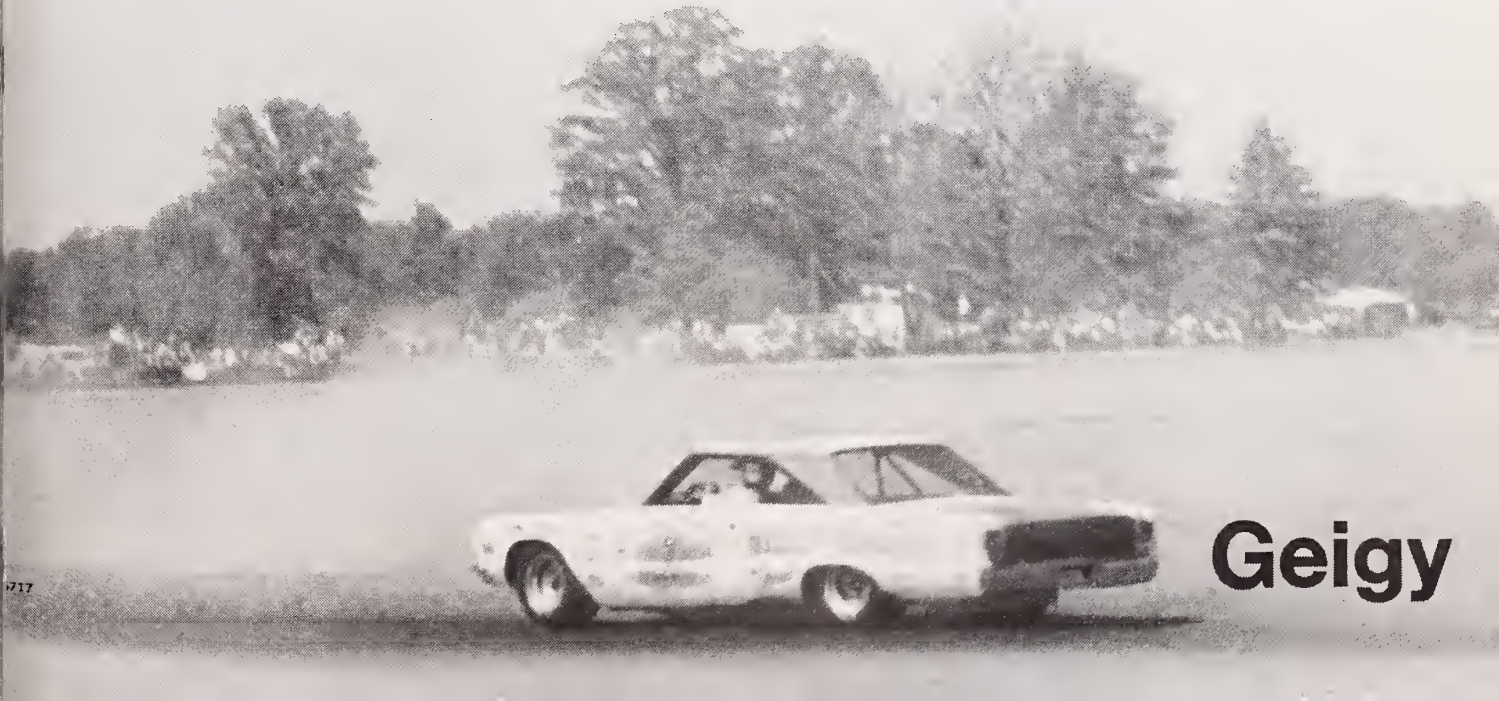
When switching from chronic high steroid therapy to Sterazolidin, the importance of gradual reduction of steroid dosage cannot be overemphasized. It should be kept in mind that the sterold content of 8 capsules of Sterazolidin will replace 10 mg. of prednisone (or its equivalent in related steroids).

Clinical experience indicates that most patients with rheumatoid arthritis may eventually be maintained on 3 to 6 capsules of Sterazolidin a day. It is advisable to administer the total daily requirement in divided doses.

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President's Page



The Medicaid furor has posed some disquieting questions. One, for example, concerns man's growing disbelief in his neighbor's trustworthiness, his integrity and his honesty. Is "Medicaid man" a confirmed cynic, and does he doubt others' reliability because he, himself, is fast losing that virtue? One wonders.

Newspapers headline the lack of "cheating checks" of doctors' Medicaid bills. Have we reached the point where cheaters must be looked for at every turn? And in particular, are physicians no longer the ethical pacesetters they have believed themselves to be?

Fraud has been present throughout history. Some kind of review is necessary. Only the most naive would think otherwise. One wonders, though, how we physicians in the "Medicaid era" compare with our predecessors of times past.

Integrity is a yoke that we can be proud to bear, and we will carry it no matter what may be said to the contrary.

Wm M. Kingsley MD

President



Editorials

THE MEDICAL SCHOOL DROPOUT PROBLEM

An editorial by Dr. Maurice B. Strauss in the June 19 issue of the NEW ENGLAND JOURNAL OF MEDICINE, entitled "Doctor or Dropout," expresses concern over the rate of attrition in our medical schools, and offers a possible explanation for it. He points out that for more than a decade almost 10 per cent of the 9,000 students admitted to medical schools in this country each year fail to graduate, despite careful screening of entrants from more than twice that number of applicants. If the problem could be perfectly solved, America could have 900 additional physicians each year. This number represents the potential graduates, annually, of 10 new medical schools which would cost one billion dollars to build and a hundred million dollars each year to operate!

Dr. Strauss states that 90 per cent of the attrition occurs during the students' first two years, and that most of it is the result of academic failure determined by the results of examination technics in current use. Failure to finish is rarely due to lack of intellectual capacity, for every student admitted has demonstrated his ability to perform well in college and has been carefully screened by the admission committee as to class standing and medical college admission test scores, and has been judged on the basis of recommendations and interviews. Physical disease is seldom responsible, and there is no reason to believe that illness occurs more often during the students' first year than later.

It is emphasized that in the first two years of medical school it makes no difference whether the examinations are of the objective or of the essay type, for they are mostly of an information-recall character. Basically they are tests of the student's memory, and seldom call for the application of knowledge to specific problems, or for analysis, synthesis or judgment—all very important for the physician. Dr. Strauss then asserts that it is reasonable to assume that the kind of examinations given in the first two years of medical school do not evaluate the quality of mind, the cognitive ability, which is required of physicians. There is no evidence to support the inference that the academic dropout of the first two years lacks the necessary attributes of a physician, though these encompass many qualities other than cognitive ability. It is of interest that of students repeating a year because of academic failure, 85 per cent graduate.

Thus, according to Dr. Strauss, it would appear that academic failure during the first two years of medical school is due in large part to an inability to show mastery of an overwhelming body of factual data. If this is the case, the question is whether it is really essential for the medical student to commit to memory such a vast amount of factual material. He quotes one writer who contended that the minimum body of facts common to all physicians successful in their various specialties could be acquired in a period of just six weeks. Dr. Strauss then makes the statement: "My own estimate is that the core knowledge of basic sciences known in common by all medical-school professors could be learned in 12 to 18 weeks." He points out that a large-scale reassessment is now under way in which each of the basic-science and clinical departments of more than 100 participating medical schools will evaluate the appropriateness and relevance of the questions asked in Part I of the National Board Examinations.

The author proposes that if there is a core of factual information which must be committed to memory, that each student be per-

mitted to take the examination when he feels competent to do so, and if he fails, to repeat it until such time as he is successful. Another proposal is to assess cognitive ability by permitting students to take notes and texts to class and use them in problem-solving examinations.

It is acknowledged that there are many facets in the medical-school dropout problem, and that it is not easy to understand why a seemingly highly motivated and intelligent student cannot make himself accomplish what 90 per cent of his colleagues do. The psychodynamic factors which rob the individual of concentration, confidence and motivation need further study. Dr. Strauss concludes by saying, "It seems clear that one important cause for medical-school attrition has less to do with students' potential to be good physicians than with inappropriate criteria for assessment in the first two years of medical school. More relevant criteria for admission, retention and graduation from medical school must be found."

These issues which Dr. Strauss has raised prompt many memories and many questions in the minds of those of us who succeeded in earning M.D. degrees. All agree that the first two years of medical school were difficult, and necessitated long hours in the laboratory and a great many hours of concentrated study. Despite "the grind," those were happy years, for we were embarked on a life career and were learning the fundamentals of the science of medicine. Those were years that necessitated self-discipline, the postponement of many pleasures and the performance of a great deal of hard work. Somehow one cannot think of any better preparation for the challenges and for the demanding life of a practicing physician.

Pressures are exerted upon the premedical student today to concentrate his efforts upon the biological and physical sciences in order that he may have advanced credits upon his entrance into medical school. This head start will accelerate his progress into clinical medicine and permit him to concentrate early on his field of special interest. Such a circumscribed program denies the student a liberal education. If, then, instead of two years of basic sciences in medical school, the necessary core knowledge is crammed into a period of 12 to 18 weeks, our medical schools will be turning out poorly qualified doctors.

The criticism that many examinations in the basic sciences are more tests of information recall than of an ability to think or to apply knowledge in the solving of problems is a valid one. Surely most physicians can recall examinations which were purely tests of memory. However any student entering medical school must be prepared to memorize and to understand a vast amount of material. There is no escaping it if one is to succeed, just as one cannot avoid memorizing the vocabulary and the idioms and learning the grammar of a foreign language if one is to became proficient in it.

Changes in medical school curricula are inevitable, but it is hoped that there will be no neglect of the basic sciences. One is poorly equipped to recognize, to understand or to treat the ills befalling mankind if he does not have a sound knowledge of the structure, the function and the disordered structure and function of the various body systems. There just is no short or easy road to Mount Aesculapius!

BUFFERED SALINE AS A PLASMA EXPANDER

A recent report from the University of Kentucky Medical Center on a more liberal use of isotonic buffered saline solution as a plasma expander in the treatment of traumatic or operative blood loss deserves the attention of surgeons and clinicians.* Infusions of Hartman's solution in properly limited amounts for the

* Rush, B. F., and Stewart, R. A.: More liberal use of plasma expander: impact on hospital blood bank. NEW ENGLAND J. MED., **280**:1202-1205, (May 29) 1969.

management of acute blood loss resulted in a significant reduction in the need for whole-blood transfusions.

According to Drs. Rush and Stewart, the University of Kentucky Medical Center was opened in 1962 with 60 beds. Since that time the bed capacity has been increased to 375. During the years 1962 to 1965, operative and traumatic blood losses were replaced in the traditional manner. A sudden drop in blood pressure at the beginning of an operation was usually treated by a blood transfusion. Patients admitted to the hospital in traumatic shock were initially given whole blood. During operative procedures, blood replacement was started after the loss of no more than 500 cc. of blood. In operations during which large losses of blood were anticipated, transfusions of whole blood were started at the beginning of the procedure.

The adoption of a more liberal use of plasma expanders was based on recent experience which indicated that many adults tolerate replacement of 1,500 cc. of blood with buffered saline solution without any consequent compromise in their postoperative course. This practice accorded with the limits set for the use of dextran during the Korean War. The chief limitation on such a dilution of the red-cell mass is the oxygen-carrying capacity, which should reasonably be kept at a hematocrit above 30 per cent. It was the belief of the Kentucky Medical Center group that any portion of the hematocrit above 30 per cent in a properly hydrated patient represented a surplus of red-cell mass which could be safely "drawn out" without replacement during an episode of bleeding, as long as the total blood volume was maintained by means of plasma expanders.

During 1965 the liberal use of a plasma expander in the management of patients was adopted. Those admitted to the emergency room in traumatic shock were initially resuscitated by the administration of one to two liters of Hartman's solution, and subsequent transfusions were frequently unnecessary. In operative procedures the drop in blood pressure at the onset of anesthesia was stabilized and maintained by the infusion of Hartman's solution. Blood losses during operations were first replaced by means of lactate Ringer's solution.

For some time, the end-point of replacement of blood loss by Hartman's solution was based for the most part on the general condition of the patient. However, experience taught that blood losses could be replaced with isotonic buffered saline to the point where the hematocrit was diluted to 15 per cent or even less, with but little change in blood pressure or pulse. Thus the hematocrit was relied upon to determine the end-point for the use of buffered saline infusion. Transfusions of whole blood were started when the hematocrit dropped to levels between 28 and 30 per cent. To monitor the hematocrit, a microhematocrit centrifuge was placed in the operating room, and nurses trained in its use were able to make hematocrit determinations on blood specimens drawn by the anesthetist during operations.

Since 1965 the common practice at the Kentucky Medical Center Hospital has been to give 10 cc. of Hartman's solution per kilogram during the first hour of an operation, and 5 cc. per kilogram during each subsequent hour. Blood losses were measured as accurately as possible, both by weight and by volume, in all patients in whom moderate or severe blood loss was anticipated, and these losses were replaced, as they occurred, by means of 2 cc. of Hartman's solution for each cubic centimeter of blood lost. Despite these guidelines the blood pressure and pulse continued to be the trustworthy criteria in monitoring patients during operation. If the pulse continued to be rapid and the blood pressure low, additional solution was administered regardless of the established formula. With this management it was found that most patients received an average of 3.0 cc. of Hartman's solution for each cubic centimeter of measured blood loss.

With the adoption of the more liberal use of Hartman's solution as a plasma expander, it was found that the blood consumed per patient admitted was reduced by 35 per cent. Blood used by the surgical service decreased 320 cc. per patient operated upon. As a consequence of the new policy, only patients losing considerable amounts of blood were transfused. One-unit transfusions were reduced from 5.5 per cent of the total number in 1963,

to 2.9 per cent in 1968. There also was a reduction in the amount of plasma given—from a total of 107 units per 1,000 admissions in 1963, to 49 units per 1,000 admissions in 1968.

The authors estimated that if the rate of blood consumption for 1964 had continued, an additional 3,863 units would have been required in 1968. In other words, there was a saving of almost 2,000,000 cc. of blood! Inasmuch as transfusion reactions occurred in 2.1 per cent of patients in 1968, this means that 81 patients were spared this complication.

Rush and Stewart point out that on a national scale blood banks are finding it difficult to meet mounting demands. The more liberal use of plasma expanders can help resolve this problem. At the present time one has the choice of plasma, plasma products, dextran and the so-called balanced or buffered saline solutions such as Hartman's solution available for this purpose. The risk of hepatitis from the the use of pooled plasma makes its use unwise. Dextran must be used only in small amounts because of its tendency to provoke bleeding when 1,000 cc. or more of it is given. Since the adoption of Hartman's solution as the primary plasma expander at the Kentucky University Medical Center, very little plasma or dextran has been used.

It is acknowledged that the criticism of saline solutions as plasma expanders because they produce hemodilution and a dilution of plasma proteins is a valid one. Hartman's solution was accepted for this purpose at the University of Kentucky because it had been possible to establish a limit for its use based on dilution of the hematocrit. The authors grant that normally the hematocrit level is not altered immediately after an acute blood loss. However they assert that when a measured loss of blood at operation is replaced as it occurs, with the proper ratio of Hartman's solution, dilution of the hematocrit takes place very much as it would from the shifting of extravascular fluids 24 hours after an episode of blood loss. Thus the hematocrit can serve as a rough measure of the loss of red-cell mass. Although 30 per cent was adopted as the lower limit for dilution of the hematocrit level—the point at which transfusions of whole blood are started—this limit is the responsibility of the physicians who are using the technic, and can be set at 34, 32 or even 26 per cent. The authors conclude with the statements: "With this method, plasma proteins are rarely diluted seriously below the normal range. Moreover, those moderate plasma-protein losses are rapidly replenished by anabolism, decreased catabolism, or a shift from extravascular sites."

ACUTE URINARY TRACT INFECTIONS IN CHILDREN

A controlled trial of the treatment of acute urinary tract infections in children, by Burke and Stickler, of the Mayo Clinic, provides practical information of value to physicians who are confronted by this common problem.* Their study was prompted by several previous ones which reported recurrence rates varying from 32 to 60 per cent, and recommended treating the initial infection for a minimum of six weeks.

The study was carried out over a 3½-year period, and was designed to test the efficacy of each of three drugs in the treatment of acute urinary tract infections, and to record the clinical courses of children given the medication during a period of two weeks. Other objectives were to determine the frequency of recurrence for a minimum of two months, and to determine the nature and extent of uropathologic changes in children with recurrent or persistent urinary tract infections.

The trial was started in April, 1965, and included chlidren who had been brought to the outpatient department with characteristic symptoms of fever, dysuria, urgency and per-

* Burke, E. C., and Stickler, G. B.: Acute urinary-tract infections in children; controlled treatment trial. PROC. STAFF MEET. MAYO CLIN., 44:318-323, (May) 1969.

haps abdominal pain, and were found to have urinary-tract infections. Excluded were children who had histories of previous urinary tract infection or any recognized anomalies of the central nervous system or of the genitourinary tract. All children were residents of Olmsted County, Minnesota, and none of them was a patient referred to the Mayo Clinic with a known problem of urinary-tract infection or congenital abnormality.

Urine was collected, in most cases, by a midstream, clean-catch method carried out by a special nurse. Occasionally it was collected by means of a catheter. Only patients in whom the urinary culture had a colony count greater than 100,000/ml. were regarded as having acute urinary tract infections. Microscopic and gram-stain examinations of the urine were routine procedures. Previous studies had demonstrated a high correlation between the bacterial counts of urine specimens obtained by suprapubic bladder aspiration and ones from midstream specimens.

Three types of medication were employed, and patients were assigned to these groups by random method. The drugs employed were trisulfapyrimidine (Terfonyl), ampicillin (Polycillin) and nitrofurantoin (Furadantin). Each child was treated with the selected drug for a two-week period according to a predetermined dosage schedule, and the parents were provided with the two-week supply of medication. Doses of the drugs were prescribed on the basis of the children's weights, and explicit directions were given regarding the frequency, the amount and the duration of the medication.

One week after cessation of treatment, or three weeks from the start of treatment, the child returned to the outpatient clinic, and a second urine specimen was obtained for culture. A bacterial count greater than 100,000/ml. was considered evidence of failure. The patients returned again for urine culture approximately two months after the onset of treatment. Infections that became evident in the interval or subsequently were classified as recurrent infections. All records were reviewed in January, 1968, and the data provided material for the report.

In the belief that clinical results were the most reliable tests of the drugs employed, no serotyping of the organisms or sensitivity tests were conducted.

Those children who had recurrent infections underwent complete pediatric urologic investigation. The investigations usually consisted of excretory urography and cytoscopy, and on occasion cinecystourethrography was employed.

During the 3½-year period a total of 137 children were entered in the study. The girls numbered 130, and the boys 7. Eighteen children were dropped from the study for various reasons. Of the remaining 119 children, 43 were treated with trisulfapyrimidine; 42 with ampicillin; and 34 with nitrofurantoin. In seven of the patients a sterile urine could not be established (two, two and three in the respective treatment groups), and they were then treated with one of the other drugs. There appeared to be no significant difference among the treatment groups, regarding the type of organism found in the initial culture.

Of the three treatment groups, recurrent infections were found in 13 children who were brought back to the clinic because of symptoms of reinfection (five, five and three children, respectively). The recurrent infections which prompted returns to the clinic occurred over the 3½-year duration of the study. Sixteen children returned for recultures six months or more after the initial infection, and only one of them was found to have a urinary-tract infection. With these exceptions, a review indicated that the children had undergone numerous other examinations during the period but none of them had been readmitted for urinary-tract infections.

Of the 13 who returned with evidence of reinfection, one child had excretory urography only, and it showed no abnormality. Of the remaining ones, nine had completely negative work-ups and have been followed in the clinic. Two underwent urethrotomy because of distal urethral stenosis. One child underwent surgery for correction of a ureteral diverticulum and reflux.

The authors concluded that there was no difference in the therapeutic effectivenesses of the three drugs. Their study indicated that a two-week period of therapy is long enough for cases of acute urinary-tract infection with a low failure rate. A re-check should be done at least twice to find children with either chronic

or recurrent urinary tract infections. They advocate urologic investigation of boys after the first episode of infection, and of girls after the second urinary tract infection, or if the infection persists after two weeks of therapy.

A REPLY TO DR. BRAY'S QUESTION

In a paper published under the heading "Case Report" in this issue of the JOURNAL, Dr. D. L. Bray, of Algona, has raised the question of how long one could or should maintain a patient on anticoagulant therapy. The man on whom he has reported was started on anticoagulant therapy 10 years ago following thrombophlebitis in a lower extremity. Each interruption of therapy has been followed by a recurrence of thrombophlebitis, necessitating resumption of the medication and long-continued treatment.

An answer to his question can be found in an article by Dr. Irving S. Wright, who tells of a patient who was started on heparin 30 years ago for the treatment of intractable thrombophlebitis, and has been on anticoagulant most of the time since then.* The patient was living and in excellent health when Dr. Wright wrote his article. Attempts to discontinue anticoagulants were made, but on each occasion phlebitis recurred, so that the patient had to accept long-term therapy as a part of his life pattern. Dr. Wright says that he has encountered many similar patients who have an inherent tendency for thrombophlebitis unless they are protected by anticoagulants.

* Wright, I. S.: Critical evaluation of anticoagulant therapy. GERIATRICS, 24:96-100, (Mar.) 1969.

Symposium on Cardiovascular Disease in Iowa City

The Great Plains Heart Association and the Council on Clinical Cardiology of the American Heart Association will present a symposium on cardiovascular disease at the Memorial Union of the University of Iowa, Iowa City, on Friday and Saturday, September 19-20. Physicians who attend it may wish to stay for the Iowa-Oregon State football game which is to be played in Iowa City on Saturday afternoon. There will be no registration fee for the conference, but football tickets, if desired, should be ordered and paid for in advance ($6 each). Address the Director of Conferences, Memorial Union. The medical program is acceptable for 9½ hours' elective credit hours by the American Academy of General Practice.

Friday, September 19

9:10-10:30 a.m. "Risk Factors in Cardiovascular Disease"—Campbell Moses, M.D., New York City
"Bedside Diagnosis of Cardiovascular Disease"—J. Willis Hurst, M.D., Atlanta

10:30-12:00 noon SIMULTANEOUS SESSIONS
I. Pediatric Cardiology
II. Auscultation of the Heart
III. Laboratory Aids in Cardiovascular Disease

2:00- 3:00 p.m. SIMULTANEOUS SESSIONS
IV. Remedial Heart Disease
V. Specialized Techniques
VI. Cardiovascular Drugs

3:30- 5:00 p.m. "Sympathomimetic Drugs in the Treatment of Shock"—Leon Goldberg, M.D., Atlanta
"Major Vessel Surgery"—Arthur C. Beall, Jr., M.D., Houston

5:00- 6:30 p.m. SIMULTANEOUS CURBSTONE CONSULTATIONS
1. Cardiovascular Drugs
2. Treatment of Shock
3. Medical vs. Surgical Treatment of Dissecting Aneurysms of the Aorta
4. Auscultation Pearls
5. Tips in Prevention of Coronary Artery Disease and Stroke
6. Pediatric Cardiac Radiology
7. Problem Electrocardiograms

Saturday, September 20

9:00- 9:30 a.m. "Prevention"—Dr. Moses
9:30-10:00 a.m. "Bedside Diagnosis"—Dr. Hurst
10:30-11:00 a.m. "Digitalis and Other Drugs"—Dr. Goldberg
11:00-11:30 a.m. "Surgical Therapy"—Dr. Beall



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Non-nursing mothers may begin Ovulen-21 immediately after delivery, on the day of departure from the hospital or at the first postpartum visit, as desired. It is recommended that nursing mothers begin Ovulen-21 four weeks after delivery.

A small fraction of the hormonal agents in oral contraceptive pills has been identified in the milk of mothers receiving these drugs. The long-range effect on the nursing infant cannot be determined at this time.

Indication—Oral contraception.

Contraindications—Thrombophlebitis, thromboembolic disorders, cerebral apoplexy or a past history of these conditions, markedly impaired liver function, known or suspected carcinoma of the breast, known or suspected estrogen-dependent neoplasia, undiagnosed abnormal genital bleeding.

Warnings—Watch for the earliest manifestations of thrombotic disorders (thrombophlebitis, cerebrovascular disorders, pulmonary embolism, retinal thrombosis); if present or suspected discontinue the drug immediately.

British studies reported in April 1968[1,2] estimate there is o seven- to tenfold increase in mortality and morbidity due to thromboembolic diseases in women taking oral contraceptives. In these controlled retrospective studies, involving 36 reparted deaths and 58 hospitalizations due to "idiopathic" thromboembolism, statistical evaluation indicated that the differences observed between users and non-users were highly significant. The conclusions reached in the studies are summarized in the table below:

Comparison of Mortality and Hospitalization Rates Due to Thromboembolic Disease in Users and Non-Users of Oral Contraceptives in Britain.

Category	Mortality Rates		Hospitalization Rates (Morbidity)
	Age 20-34	Age 35-44	Age 20-44
Users of Oral Contraceptives	1.5/100,000	3.9/100,000	47/100,000
Non-Users	0.2/100,000	0.5/100,000	5/100,000

No comparable studies are yet available in the United States. The British data, especially as they indicate the magnitude of the increased risk to the individual patient, cannot be applied directly to women in other countries in which the incidences of spontaneously occurring thromboembolic disease may differ.

Discontinue medication pending examination if there is sudden partial or complete loss of vision, or sudden onset of proptosis, diplopia or migraine. Withdraw medication if papilledema or retinal vascular lesions are found.

Since the safety of Ovulen in pregnancy has not been demonstrated, it is recommended that pregnancy be ruled out for any patient who has missed two consecutive periods before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule the possibility of pregnancy should be considered at the first missed period.

A small fraction of the hormone agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. The long-range effect on the nursing infant cannot be determined at this time.

Precautions—Pretreatment physical examination should include special reference to the breasts and pelvic organs, and a Papanicolaou smear.

Endocrine and possibly liver function tests may be affected by Ovulen. Therefore, it is recommended that such tests if abnormal be repeated after the drug has been withdrawn for two months.

Pre-existing uterine fibromyomas may increase in size under the influence of progestogen-estrogen preparations.

Because these agents may cause some degree of fluid retention, conditions which might be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation.

In breakthrough bleeding, and all irregular vaginal bleeding, consider nonfunctional causes. Adequate diagnostic measures are indicated in undiagnosed vaginal bleeding.

Carefully observe patients with a history of psychic depression and discontinue the drug if severe depression recurs.

Any possible influence of prolonged Ovulen therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study.

A decrease in glucose tolerance has occurred in a significant percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be observed carefully while receiving Ovulen.

Because of the effects of estrogens on epiphyseal closure Ovulen should be used judiciously in young patients in whom bone growth is not complete.

The age of the patient constitutes no absolute limiting factor, although Ovulen therapy may mask the onset of the climacteric.

The pathologist should be informed of Ovulen therapy when relevant specimens are submitted.

Adverse Reactions—A statistically significant association has been shown between use of oral contraceptives and the following serious adverse reactions: thrombophlebitis, pulmonary embolism.

Although available evidence is suggestive of an association, such a relationship has been neither confirmed nor refuted for the following serious adverse reactions: cerebrovascular accidents, neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis.

The following adverse reactions are known to occur in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea during and after treatment, edema, chloasma or melasma, breast changes (tenderness, enlargement, secretion), change in weight, changes in cervical erosion and cervical secretions, suppression of lactation when given immediately post partum, chalestatic jaundice, migraine, allergic rash, rise in blood pressure in susceptible individuals, mental depression.

Although the following adverse reactions have been reported in users of oral contraceptives, an association has been neither confirmed nor refuted: anovulation post treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme and nodosum, hemorrhagic eruption, itching. The following laboratory results may be altered by oral contraceptives: hepatic function: increased sulfobromophthalein and other tests; coagulation tests: increase in prothrombin, Factors VII, VIII, IX and X; thyroid function: increase in PBI and butanol extractable protein bound iodine, and decrease in T^3 uptake values; metyrapone test; pregnanediol determination.

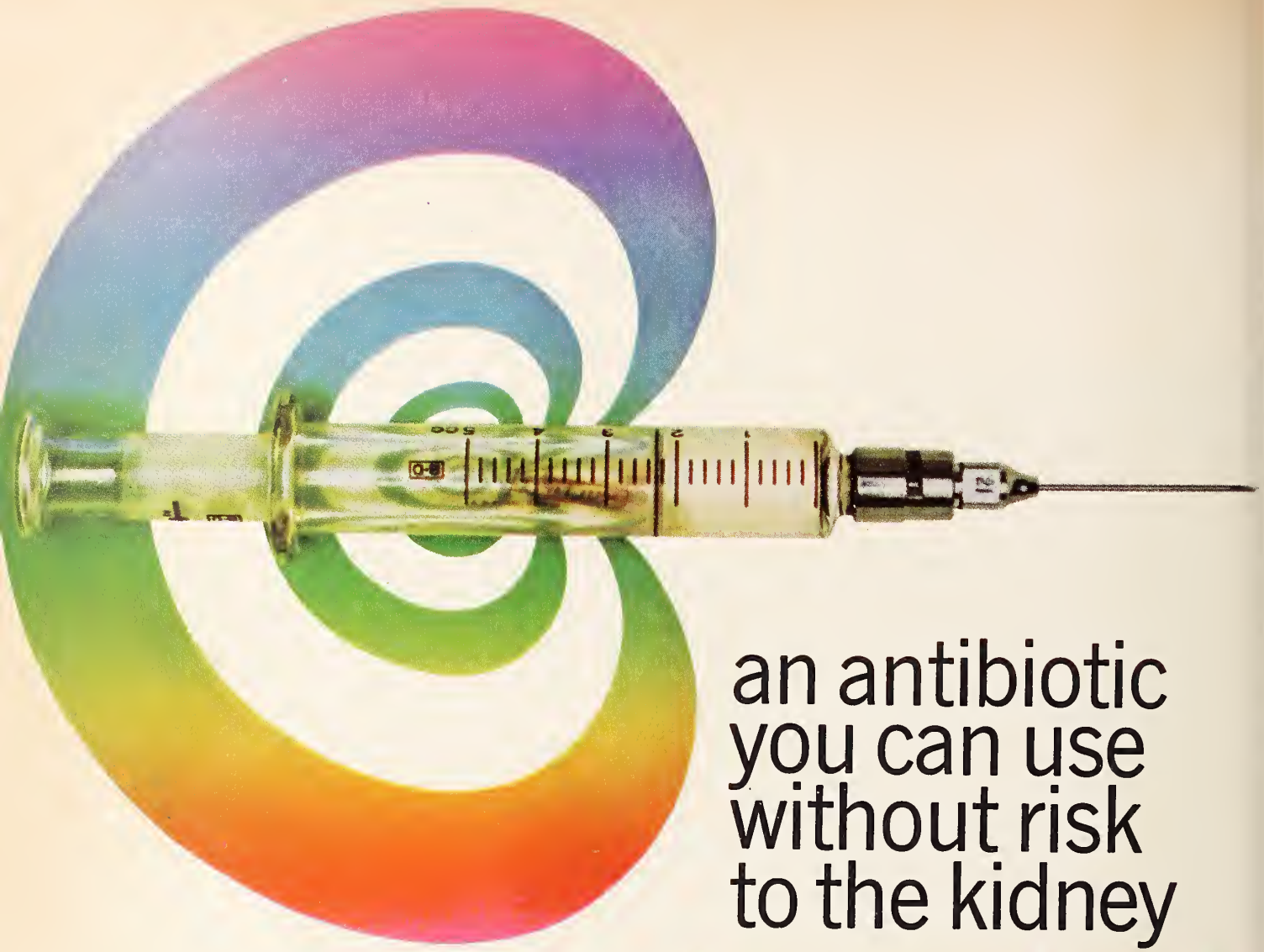


References: 1. Inman, W. H. W., and Vessey, M. P.: Brit. Med. J. 2:193-199 (April 27) 1968. 2. Vessey, M. P., and Doll, R.: Brit. Med. J. 2:199-205 (April 27) 1968.

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Contraindications: A history of allergic reactions to penicillins or cephalosporins and infections due to penicillinase-producing organisms.

Precautions: Typical penicillin-allergic reactions may occur, especially in hypersensitive patients. Mycotic or bacterial superinfections may occur. Experience in newborn and premature infants is limited and caution should be used in treatment, with frequent organ function evaluations. Safety for use in pregnancy is not established. In gonorrheal therapy, serologic tests for syphilis should be performed initially and monthly for 4 months. Assess renal, hepatic and hematopoietic function intermittently during long-term therapy.

Adverse Reactions: Skin rash, pruritus, urticaria, nausea, vomiting, diarrhea and anaphylactic reactions. Mild transient elevations of SGOT or SGPT have been noted. Black tongue has been noted in some patients receiving the Chewable Tablets.

Usual Dosage: Adults—250 or 500 mg. q. 6 h. (according to infection site and offending organisms). Children—50-100 mg./Kg./day in 3 to 4 divided doses (depending on infection site and offending organisms). Bacterial meningitis—150-200 mg./Kg./day in 6 to 8 divided doses. Children weighing more than 20 Kg. should be given an adult dose when prescribing orally. In parenteral administration, children weighing more than 40 Kg. should be given an adult dose. Beta-hemolytic streptococcal infections should be treated for at least 10 days.

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Coming Meetings

(Continued from page 802)

Oct. 23	**Fifth Annual Symposium on Air Pollution and Respiratory Disease sponsored by New York State Action for Clean Air Committee,** New York University Medical Center, New York.
Oct. 23-25	**47th Annual Fall Clinical Conference sponsored by Kansas City Southwest Clinical Society,** Hotel Muehlebach, Kansas City, Missouri.
Oct. 23-25	**Annual Course in Postgraduate Gastroenterology sponsored by American College of Gastroenterology,** Rice Hotel, Houston.
Oct. 25-29	**Annual Meeting of American Society of Anesthesiologists,** San Francisco Hilton, San Francisco.
Oct. 27	**Oral Cancer Seminar sponsored by University of Colorado School of Medicine,** Humphreys Postgraduate Center, Denver.
Oct. 27-31	**Office Psychiatry for Internists sponsored by American College of Physicians,** Faulkner Hospital, Boston.
Oct. 29-30	**American Association for Study of Liver Diseases,** Sheraton Hotel, Chicago.
Oct. 29-31	**Symposium on Pharmacology of Selected Drugs Used in Dermatology sponsored by New York University School of Medicine,** New York University Medical Center, New York.
Oct. 29-Nov. 2	**American College of Chest Physicians First Fall Scientific Assembly,** Chicago.
Oct. 31-Nov. 1	**Obstetric Pediatric Conference sponsored by University of Nebraska Medical Center and Denver Children's Hospital,** Lincoln General Hospital, Lincoln.

ABROAD

Sept. 1-5	**International College of Surgeons, United States Section, 34th Annual Meeting,** Montreal.
Sept. 14-17	**European Association for Study of Diabetes, 5th Annual Meeting,** Montpellier, France.
Sept. 22-27	**International Congress on Rural Health,** Usuada, Japan.
Sept. 25-27	**French Congress of Medicine (37th),** Paris.
Oct. 2-3	**International Union of Therapeutics, 10th International Congress,** Paris.
Oct. 6-11	**International Congress of Radiology (12th),** Tokyo.
Oct. 15-17	**Association of Life Insurance Medical Directors of America, Annual Meeting,** Quebec City.
Oct. 16-18	**National Conference on Obstetrics and Gynecology,** Bucharest, Rumania.
Oct. 16-18	**Postgraduate Course in Intensive Management of Pulmonary Disease sponsored by American College of Chest Physicians,** Winnipeg, Canada.

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Case Studies



LONG-TERM DICUMAROL THERAPY

DAN L. BRAY, M.D.

ALGONA

In an exuberant moment I have decided to report a patient who has been on Dicumarol for nearly 10 years. The records I have kept on his case are as accurate as my busy practice has permitted, and his visits for my care have been limited by his responsibilities as a farmer and father. Perhaps my report will bring me suggestions about how long this patient should *remain* on the anticoagulant, though his quite remarkable recovery has been due to its effects (plus his faithfulness in staying "on the pill.")

I should appreciate references to any pertinent literature on this matter, or any comments that others may care to write.

GENERAL OPENING STATEMENT

On October 19, 1959, L.F.P. came to my office with a right upper femoral venous phlebitis. That difficulty in his *right* lower extremity was new, having started spontaneously (except for a cold), but the patient—an active and otherwise healthy farmer—had had a lower *left* extremity chronic thrombophlebitis for 13 years, following a pelvic fracture. Throughout those 13 years he had wrapped his left leg in an elastic bandage each morning, and he has wrapped both his legs thus since October, 1959. He has had no known thromboembolic events. His blood is type A Rh-positive.

As I write this, he has about 2½ months left in which to complete a 10-year period of continuous Dicumarol therapy, and he has experienced great subjective and seemingly total clinical relief from his chronic thrombophlebitis of both lower extremities, which included chronic swelling; chronic aching either or both superficially and deep in the involved leg or thigh; chronic dark, dusky discoloration when the limbs were dependent; attacks of painful and tender inflammation along a visible varicose vein; and "Charley horse" in a thigh or leg. He has had no ulceration, however, and no embolism, as I have said.

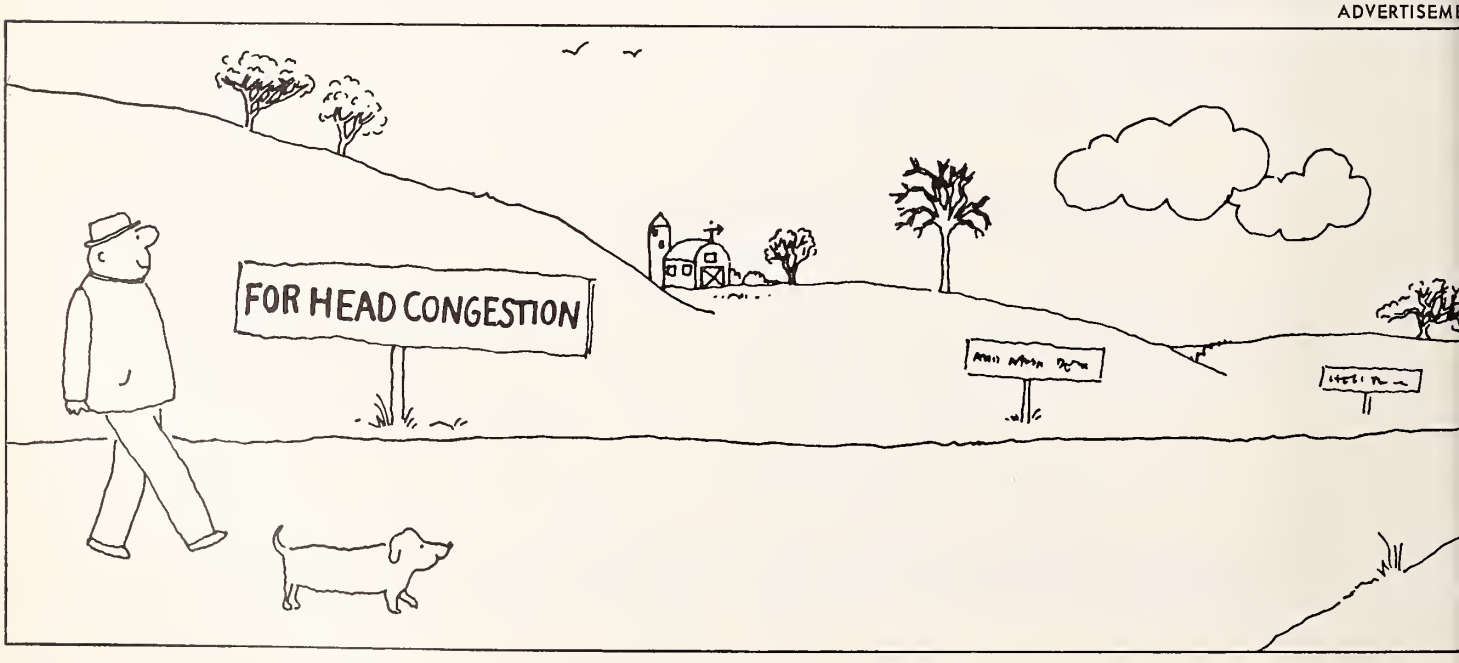
FAMILY HISTORY

The patient said his mother "had a bad leg" following trichinosis in 1936, when "the whole family" had that disease. He reported that his mother is living and still has trouble; his father died of trichinosis at that time. His paternal grandmother had an open ulcer near the ankle.

BODY WEIGHT, OTHER MEASUREMENTS AND SYMPTOMS

The patient has kept his body weight no higher than 215 lbs., since December 11, 1959, when he weighed 212 lbs. Circumferential lower-extremity measurements have been made fairly regularly since November 27, 1959, for the thighs six inches above upper edge of patellae and six inches below lower edge of patellae for legs. The records show that he has lost 6.8 cm. in the tissue diameter of his right thigh, and 1.8 cm. of his left thigh. From

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the tissue diameter of his right calf he has lost 1 cm. and from the left calf 0.9 cm. during the 10-year period of treatment. Also in that 10-year interval the marked dependent cyanosis of the entire lengths of his lower extremities has disappeared, as have the aching and other disabling factors. His pulsis pedis arteries are good bilaterally. He has minimal swelling of the legs, off and on, and he does have a tiredness below the knees after walking and does have sacroiliac aches. Occasionally, a "Charley horse" occurs in a posterior thigh, calf or foot.

Those comparatively minor symptoms contrast with those noted in 1959, when he had swelling in both legs after weight-bearing for any length of time, a dusky cyanosis of both legs and thighs, and many additional discomforts. He could himself find superficial phlebitis of visible varicose veins which extended upward and lasted a while before remitting. If the vein became inflamed as far as the back of his knee, it would seem to extend up into the thigh area.

Briefly, then, I can report that the man's 13-year prior history of left lower extremity disability, and the trouble he had in his right lower extremity starting in 1959 have been largely, and remarkably, overcome.

HEART ATTACK

On October 1, 1965, this patient was to have a tooth extracted, and he stopped Dicumarol eight or nine days before that date. He then had a heart attack, and was hospitalized for about one week. At that time his blood cholesterol was over 300, and he had electrocardiographic evidence of a posterior infarct, with an audible pericardial friction rub. He resumed his farm work, part-time, six weeks after his attack, and full-time work two months later. Now he carries on more or less normally as a farmer, with some discomfort after overexertion. In January, 1966, he noted that tension brought on some angina, but since his myocardial infarction he has not had any phlebitis, though prior to that time he could find it easily by himself and could describe it well.

BLEEDING EPISODES

The patient had no unusual bleeding after he burned his right forearm in 1962, and there was little or no bleeding when he imbedded a wire in his right leg in 1963. He did bleed on July 10, 1968, when he had right ulnar bursitis resulting from a bump, and the wound required aspiration and pressure. He has never needed vitamin K for bleeding.

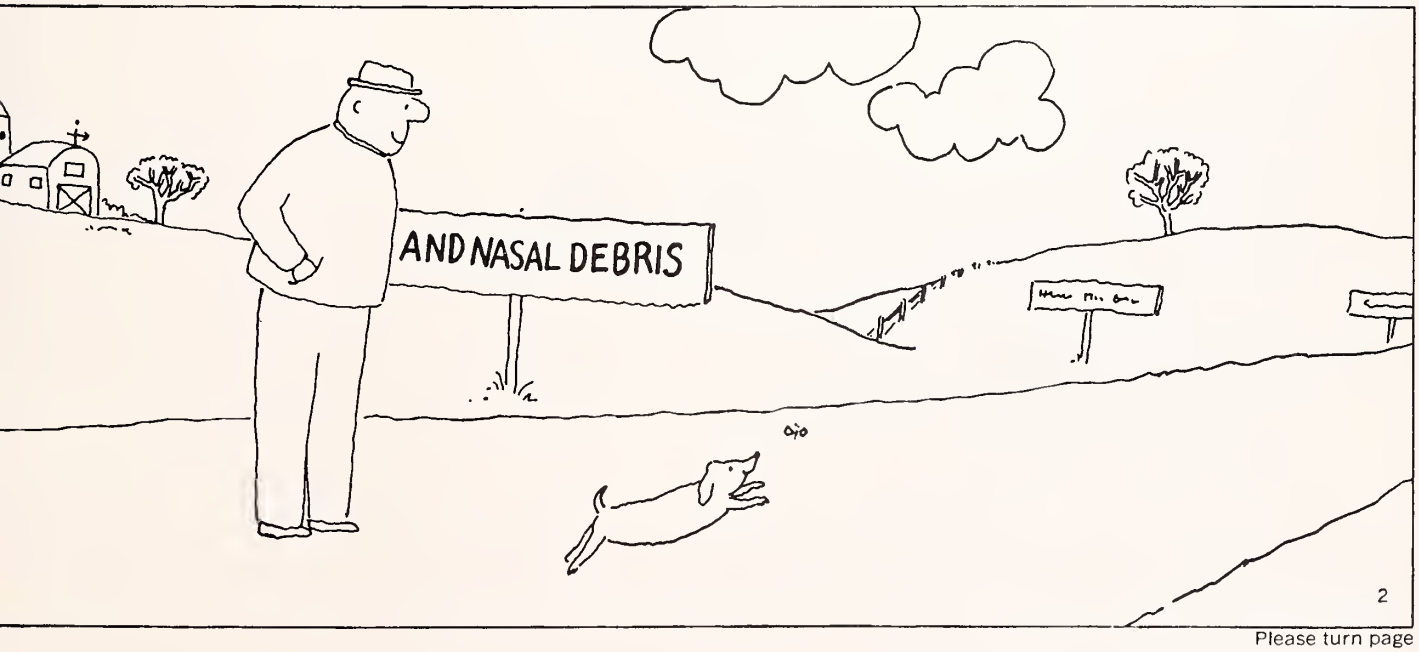
His Dicumarol dosage generally followed a pattern of 50-mg. tablets 2-1-2-1 per day, alternately, until December 20, 1962, and then 2-1-1-2 from that time to the present. The laboratory prothrombin times were done at intervals of three to seven months, and were usually in the 20- to 30-second range. The highest was 37 seconds and the lowest 12 seconds.

The patient does not bruise easily. On August 18, 1965, he hit his right hand very hard, accidentally, with a hammer, but no unexpected type of hemorrhage resulted. There never have been any unexplained or spontaneous bleeding episodes. On October 14, 1961, he sustained a right-fibula bruise, and no unusual bruise-bleeding occurred.

PRESENT STATUS OF PATIENT

Interestingly, this man is now far-sighted, and all of his children are near-sighted. His wife had choroiditis beginning with her second pregnancy in 1954, but now has markedly improved vision and has regained her driver's license after a tubal

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ligation and no subsequent pregnancy. (She was cared for at University Hospitals, Iowa City.)

The patient has *no* cyanosis of dependency in the lower extremities. He wraps his legs from knee to ankle when he gets up in the morning. Varicose veins are easily visible between his knees and ankles, and they are greater in his left leg. He first noticed his varicose veins about a year or two after his pelvic injury in 1946. He has never had vein stripping, tying or other vein surgery.

He gets tired and needs sleep at such times, but a rest completely relieves his tiredness. He feels he can do more things on some days than he used to be able to do. He can lift rocks weighing up to 150 lbs., and can walk as far as four or five miles. Everything has seemed easier for him this past year, as compared with previous ones. Superficial visible and palpable vein inflammation has not appeared these past few years, since his myocardial infarction. No bronzing or ulceration of the skin has been observable. The varicose veins are not indurated or tender, and though they are prominent on his legs there is no unusual subcutaneous darkening.

He has markedly reduced the salt in his diet since his heart attack. He does have vague arthritic aching of the joints in his hands and elbows. That complaint goes back as far as 1940, but it has grown more prominent during the past two years. Starburst-pattern varicose veins were last visible on April 23, 1968.

MISCELLANEOUS DATA

Hospitalization: From November 9 to 23, 1959, for right lower limb phlebitis; from October 2 to 12, 1962, for a right superficial phlebitis flareup, with cyanosis; and from October 1 to 7, 1965, for acute myocardial infarction.

Office Care: A total of 58 calls from 1959 to the present (July 12, 1969). Twelve calls were the most in any one year, and one call constituted the least. There were four or fewer in six of the 10 years.

Infections: Tonsillitis and bilateral serous otitis on April 30, 1960; and bouts of "stomach flu" with either diarrhea or vomiting (according to the patient) at intervals of three or four years.

Medication: Other than Dicumarol (the dosages of which have been stated earlier in this report), Hydrodiuril, 25 mg. twice a week since 1965. Any others were given for a very few days at a time.

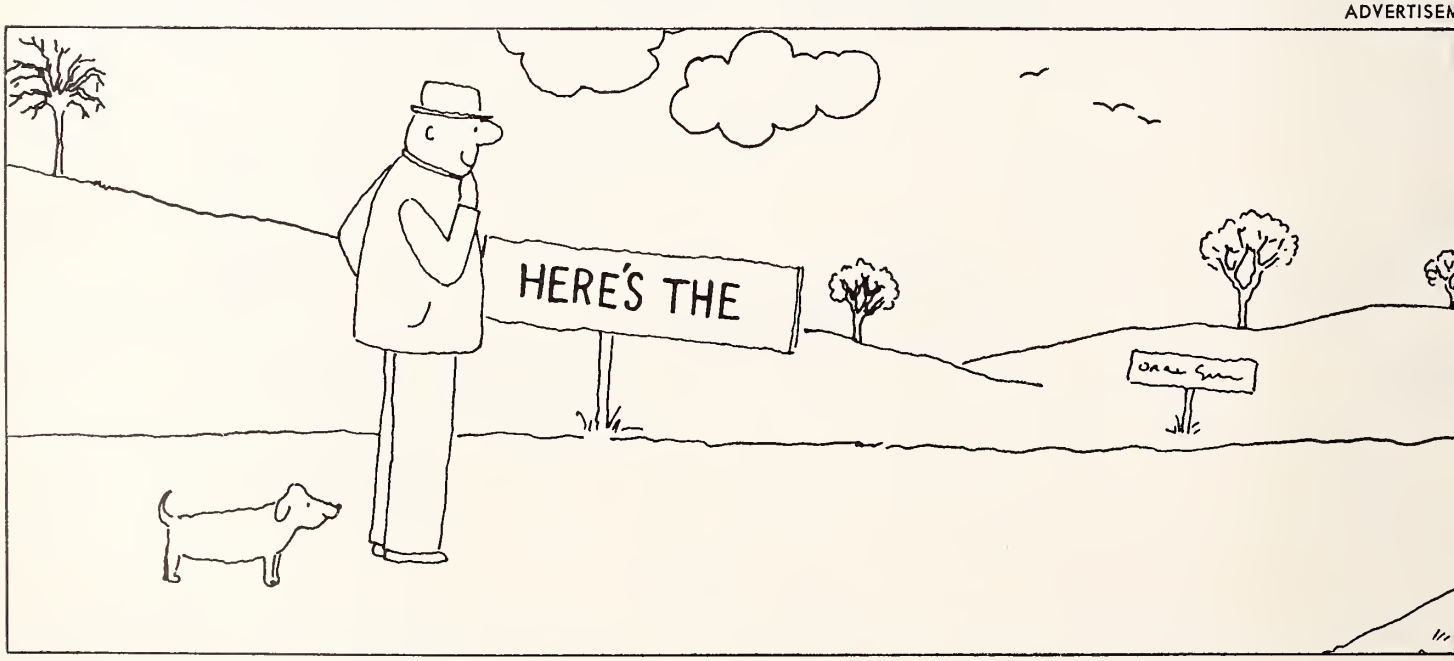
Medical Program at Lincoln on a Football Weekend

Problems of the gastrointestinal tract will be the subject of "Bryan Days" at Bryan Memorial Hospital, in Lincoln, October 17 and 18. The program is sponsored by the University of Nebraska College of Medicine, and qualifies for three hours of AAGP credit. The $20 registration fee includes one luncheon.

The guest speakers will include F. L. Weakley, M.D., of the Cleveland Clinic; Leroy Stahlgren, of Episcopal Hospital, Philadelphia; and James Chapman, M.D., of the Kansas City General Hospital.

The Kansas-Nebraska football game is to be played at Lincoln on the afternoon of October 18.

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INFORMATION FROM THE
IOWA HEART ASSOCIATION

Hypotension and the Shock Syndrome in Myocardial Infarction

RICHARD S. ROSS, M.D.

HYPOTENSION IS a common and often benign consequence of myocardial infarction. The "shock syndrome" is a less common, but often fatal complication. A precise definition and a clear understanding of the hemodynamic consequences of myocardial infarction are, therefore, necessary for management.

Blood pressure alone is not a good index of the patient's clinical status. Blood pressure (BP) is a function of both cardiac output (CO) and total peripheral resistance (TPR), as indicated by the simple relationship:

$$BP = CO \times TPR$$

Thus, BP will be reduced if either CO or TPR is reduced.

Shillingford and colleagues have shown that there are two physiologic patterns associated with arterial hypotension, depending upon the state of peripheral resistance. In one group of patients the hypotension is clearly related to a reduced cardiac output, and the peripheral resistance may be normal or increased. In the second group, TPR is reduced but the cardiac output is normal. These two groups can sometimes be distinguished clinically. The first group, with increased resistance, presents with cool extremities and a small pulse volume, whereas the second group is characterized by warm extremities and a full pulse.

Hypotension exists in at least 80 per cent of patients following myocardial infarction, and in most patients the blood pressure will return to normal levels following the relief of pain and the administration of oxygen. The hypotension occasionally persists for weeks or months, but is often unassociated with significant symptoms.

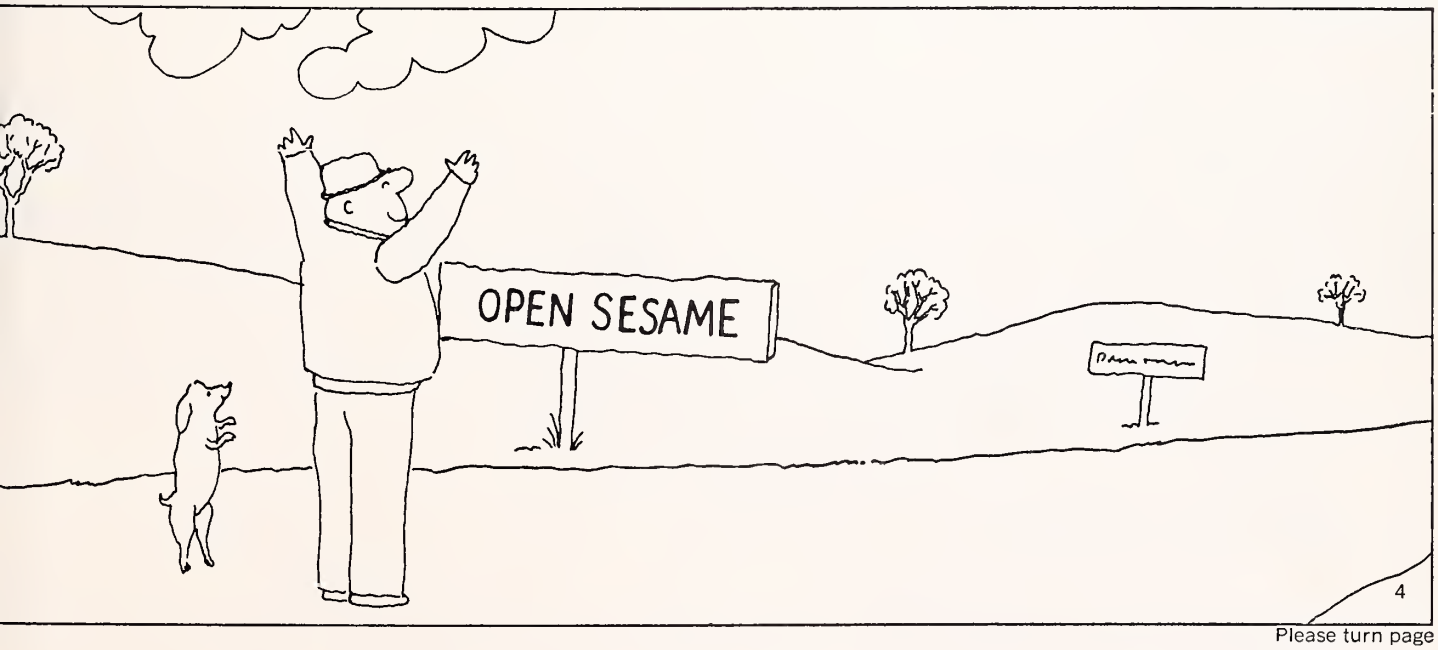
THE SHOCK SYNDROME

The shock syndrome occurs in about 20 per cent of patients with myocardial infarction, and accounts for at least 50 per cent of the deaths, now that the mortality from arrhythmias has been reduced. The mortality rate in patients with shock syndrome secondary to myocardial infarction ranges from 85 to 95 per cent, if the syndrome is rigidly defined and clearly distinguished from simple hypotension as described above.

The following criteria for the shock syndrome define a population of patients with a mortality of greater than 95 per cent: (1) systolic arterial blood pressure of less than 80 mm. Hg; (2) clinical signs of peripheral circulatory insufficiency; cold, moist skin and cyanosis; (3) dulled sensorium; (4) oliguria, with a urine flow of less than 30

Professor of Medicine, Director of Cardiovascular Division, Department of Medicine, The Johns Hopkins University School of Medicine, Baltimore, Maryland.

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ml./hr.; and (5) failure of improvement following relief of pain and the administration of oxygen.

An insult to the heart is the cause of the shock syndrome in myocardial infarction, although all organ systems are ultimately involved. The function of the heart is impaired by the initial insult. This results in a decrease in arterial pressure, and hence in coronary blood flow, because of its dependence upon aortic-perfusion pressure. The reduction in coronary-perfusion pressure and myocardial blood flow further impair myocardial function and may increase the size of the myocardial infarction. Arrhythmias and metabolic acidosis also participate in this deterioration in that they are the result of inadequate perfusion and both tend to perpetuate the precipitating conditions. It is this negative feedback relationship (impaired cardiac function—arterial hypotension —reduced coronary blood flow—impaired cardiac function) which accounts for the high mortality associated with the shock syndrome.

Cardiac output is lower in a population of patients with shock than in those who do not have the shock syndrome, but this is by no means the whole explanation. There are many patients with myocardial infarction without shock who have cardiac outputs in the same range or lower than those measured in patients with shock. Therefore it is not possible to characterize these patients on the basis of changes of cardiac output alone.

Total peripheral resistance, the other factor important in determining blood pressure, may be normal, increased or decreased in myocardial infarction. Here again, a similar range of values for total peripheral resistance can be seen in patients in the absence of shock. Normally, a fall in cardiac output is accompanied by a compensatory rise in total peripheral resistance, but in patients with shock due to myocardial infarction, the appropriate response in peripheral resistance fails to occur. Thus, it appears that the total peripheral resistance is inadequate to support blood pressure at the existing level of cardiac output, regardless of the extent of reduction of the latter.

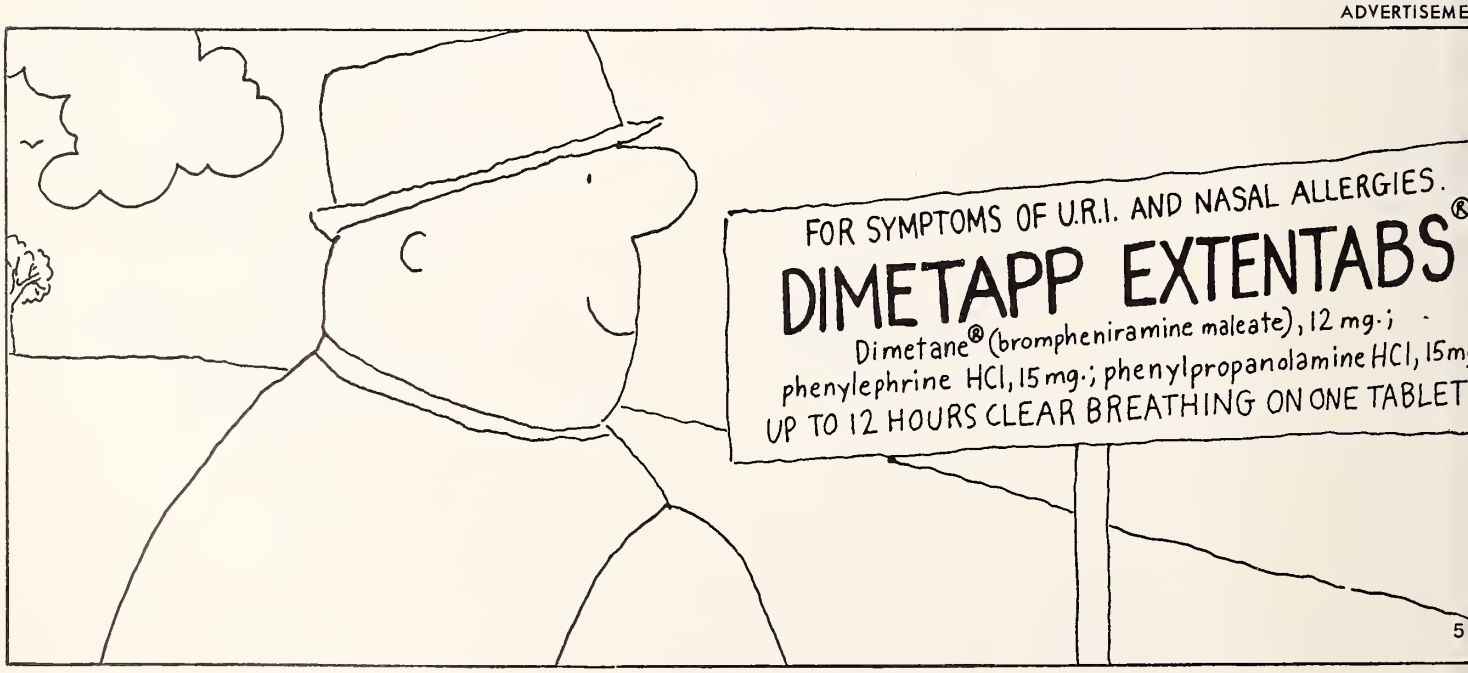
TREATMENT

The objective of treatment is the interruption of the negative feedback loop, whereby impaired myocardial function leads to a reduction in arterial pressure, decreased coronary blood flow and a further depression of left ventricular function. One approaches this objective by attempting to improve cardiac function and to raise the arterial blood pressure.

Vasopressors constitute an important form of therapy for shock of myocardial infarction. A small increase in arterial pressure may result in a sizable increase in coronary blood flow. The best vasopressors for use in myocardial infarction are nor-epinephrine (Levophed) and metaraminol (Aramine), which act both on the alpha receptors in the arterial wall and on the beta receptors in the myocardium. Thus the practical experience with the treatment of shock in myocardial infarction is consistent with the theory of pathogenesis which emphasizes the dual nature of the pathophysiology in that drugs which act on both the heart and the peripheral circulation are the most effective.

Consideration of the central role of impaired myocardial function in the shock syndrome leads to the conclusion that cardiac glycosides should be administered to all patients with this condition. Obviously the cardiac glycosides cannot improve

ADVERTISEME



the function of necrotic myocardium, but a positive inotropic influence of the non-infarcted myocardium is desirable. It has been demonstrated that the incidence of arrhythmia and cardiac rupture is no higher in patients with myocardial infarction treated with digitalis than in a control group.

Certain general measures have proven useful in the treatment of the shock syndrome. All patients with the shock syndrome should receive 100 per cent oxygen continuously, because the addition of dissolved oxygen to the plasma helps to combat the hypoxemia which is universally present. The relief of pain is important because some vasodepressor reflex activity may be a response to severe pain, but narcotics should be used cautiously in view of their hemodynamic effects.

Fluid volume replacement has a limited, but definite, place in the therapy of the shock syndrome due to myocardial infarction. It may be indicated in patients who have been receiving pressor drugs for a prolonged period because pressor therapy results in a decrease in plasma volume secondary to the movement of fluid into extravascular space. In such patients, if central venous pressure is low and there is no evidence of pulmonary congestion, the blood pressure may be easier to maintain after the plasma volume has been expanded by the administration of plasma or salt-poor albumin. Venous pressure should be monitored and the lungs examined frequently during the administration of plasma. Also, fluid replacement is necessary in patients who have lost extracellular fluid volume consequent to vomiting or sweating.

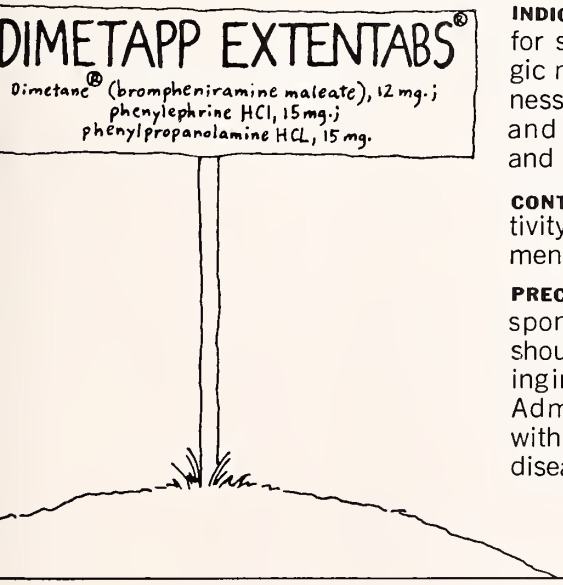
The high mortality and relative ineffectiveness of conventional therapy has provided a stimulus for the investigation of other approaches to the problem. The basic defect in the shock syndrome is impaired myocardial function. Therefore many mechanical assist devices are currently under investigation. The therapeutic value of hyperbaric oxygen therapy is also being studied. Experiments with animals are encouraging, but clinical trials have been disappointing. A large fraction of patients with the shock syndrome have severe, diffuse coronary atherosclerosis and large areas of infarcted myocardium. It is in this group of patients that total replacement of the heart by a homo-transplant or an artificial device will have its greatest usefulness. Circulatory-assist devices may have their greatest use in sustaining life until this procedure is possible.

AMA Judicial Council Opinions and Reports, 1969

An up-to-date compilation of the AMA Judicial Council's elaborations of the Principles of Medical Ethics has just been published, and member physicians can secure copies of it, free of charge, from Mr. Edwin J. Holman, Department of Medical Ethics, American Medical Association, 535 North Dearborn Street, Chicago 60610.

The booklet which it replaces bore the date 1966. AMA JUDICIAL COUNCIL OPINIONS AND REPORTS, 1969 of course contains rulings and advice concerning new developments such as the circumstances under which doctors may utilize patients' bank cards, the circumstances under which they may dispense medications to patients, etc., as well as the AMA's official positions that have stood unchanged for many years.

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INDICATIONS: Dimetapp is indicated for symptomatic relief of the allergic manifestations of respiratory illnesses, such as the common cold and bronchial asthma, hayfever and conjunctivitis.

CONTRAINDICATIONS: Hypersensitivity to antihistamines. Not recommended for use during pregnancy.

PRECAUTIONS: Until patient's response has been determined, he should be cautioned against engaging in operations requiring alertness. Administer with care to patients with cardiac or peripheral vascular diseases or hypertension.

SIDE EFFECTS: Hypersensitivity reactions including skin rashes, urticaria, hypotension and thrombocytopenia, have been reported on rare occasions. Drowsiness, lassitude, nausea, giddiness, dryness of the mouth, mydriasis, increased irritability or excitement may be encountered.

DOSAGE: 1 Extentab morning and evening.

SUPPLIED: Bottles of 100 and 500.

A·H·ROBINS A. H. ROBINS COMPANY RICHMOND, VIRGINIA 23220

6

THE DOCTOR'S BUSINESS



The Appointment System— Key to Time-Management

LARRY E. LEAVERTON
Des Moines

One of the most important factors in organizing the busy physician's time is his appointment system. In years past, some offices used the "barber shop" approach, with the result of bunching patients late in the morning and late in the afternoon. This system—or lack of one—made it impossible for the doctor to make the most efficient use of his time, and became one of the most common causes of patients' complaints.

You need only to drive by the parking lot of any large medical complex or professional building at 5:30 p.m. to see that most offices are now keeping more regular hours. One of the reasons is the tighter rein that is kept upon the increased traffic in office practice. Another is the increasing difficulty in getting staff members who are willing to work into the evening. Many doctors have found that they enjoy the routine of starting earlier and completing their office hours earlier.

For example, one physician whom we know had a fluctuating hospital load. But whether he had 12 or three patients to see at the hospital, he never started his office appointments until 1 p.m. He had a dedicated medical assistant who was willing to stay until the last patient was dismissed, at 7 or 7:30 p.m. But when she left him, he found it necessary to adopt a more regular schedule. He now sees more patients and with much more ease. His patients and his family also like the new schedule.

In another office the first appointments were always scheduled for 10 a.m., but the doctor seldom arrived until 10:30 or 11. Thus he started out late, and he never seemed to catch up. Moreover it caused needless waiting for his patients.

If you are constantly running late on appointments, your system is not necessarily at fault. There may be ways in which you can be more efficient in the way your patients are handled. For example, more tasks can be delegated to qualified assistants, and you can make use of forms or written instructions to patients.

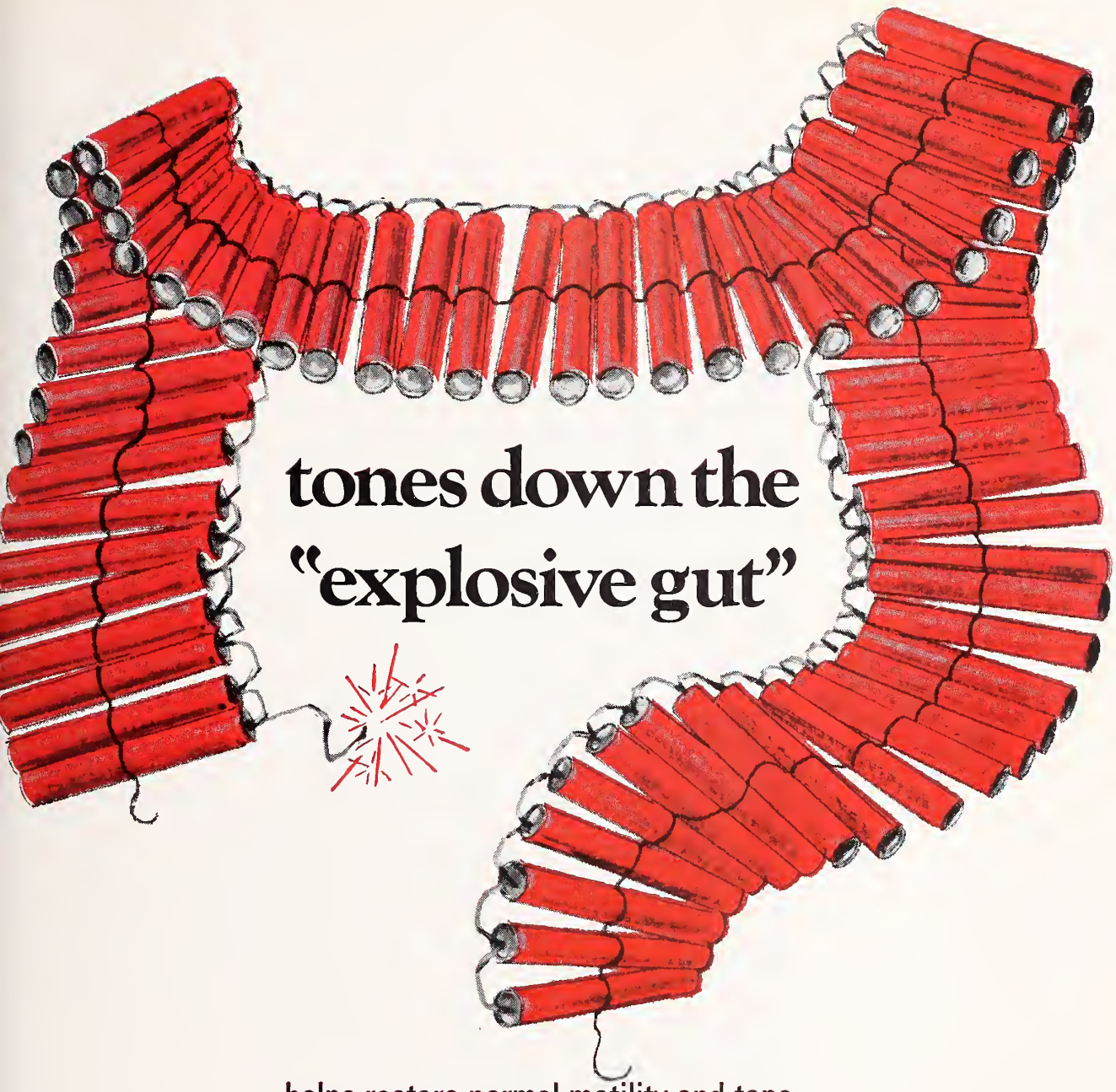
Mr. Leaverton has been associated with Professional Management Midwest since 1949. He is a partner in the firm, and is director of its Research and Development Department.

SOME PRACTICAL SUGGESTIONS

What type of appointment book is best? The appointment book and the system used in keeping it must be flexible and tailored to the needs of the individual office. It should have time intervals to accommodate all of your common procedures. If one procedure takes five minutes and another 25 minutes, why schedule each of them for 15 minutes? The second patient may be on time, but you will have been waiting for him. Be sure the book provides sufficient space for full names, phone numbers when necessary, the purpose of the call, and the name of the referring doctor. These pieces of information will help you to plan your day. Some offices prefer a book which has the entire week spread when the book is open. Others like to have one day to a page, so that there is additional space to be used when doubling-up is necessary or when patients must be listed for lab and x-ray. Grouping patients is often desirable. For example in a general practice the obstetrical patients can be scheduled for a certain day of the week, children can be seen together, or a complete physical and two minor procedures can be scheduled in the same time slot. There should be space for reminders such as those concerning evening meetings, etc. If a loose-leaf type of book is used, the current day's page can be run through your copy machine so that it can be made available not only at the front desk but in your consultation office or lab area. A partnership or group practice needs a multi-column page or pages, and provision must be made for days off and weekend coverage.

There are a number of good appointment books on the market, but if you can't find one which is adaptable to your specific practice, you can always design one. It will be worth the time and expense.

(Continued on page 855)



tones down the "explosive gut"

helps restore normal motility and tone

CANTIL®

(mepenzolate bromide)

Diarrhea and other symptoms of common G.I. disorders can often be curbed with Cantil (mepenzolate bromide), bringing welcome relief to the harassed patient. Relatively specific for the hyperactive colon, it helps reduce diarrhea, pain and spasm with minimal effect on other viscera. Cantil (mepenzolate bromide) is indicated whenever these symptoms are associated with irritable colon, gastroenteritis, diverticulitis, and mild to moderate ulcerative colitis.

It is an anticholinergic drug without narcotic properties. Side effects are usually mild.

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CONTRAINDICATIONS: Sensitivity to Cantil® (mepenzolate bromide), glaucoma, G.I. or G.U. obstruction, toxic megacolon. WARNINGS: Possibility of adverse reactions in advanced severe ulcerative colitis and atypical agitated reactions to phenobarbital in the elderly (Cantil with Phenobarbital). PRECAUTIONS: Cantil is of adjunctive use only; treatment of the underlying condition is indicated, be it organic or functional. Observe caution in conditions known to be incompatible with atropine-like drugs, e.g., open-angle glaucoma or prostatic hypertrophy. ADVERSE EFFECTS: Dry mouth; blurred vision; constipation; nausea; vomiting; bloating; dizziness; urinary retention. All are anticholinergic effects and usually tolerable. Habituation and idiosyncratic reactions to phenobarbital (Cantil with Phenobarbital) are possible, as is generalized rash. DOSAGE: One or two tablets three times a day and one or two at bedtime usually provide prompt relief. Cantil with Phenobarbital may be prescribed if sedation is required. HOW SUPPLIED: CANTIL (mepenzolate bromide)—25 mg. per scored tablet. Bottles of 100 and 250. CANTIL with PHENOBARBITAL—containing in each scored tablet 16 mg. phenobarbital (warning: may be habit forming) and 25 mg. mepenzolate bromide. Bottles of 100 and 250.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

Symbols in a life of psychic tension

M.A.

class of '66

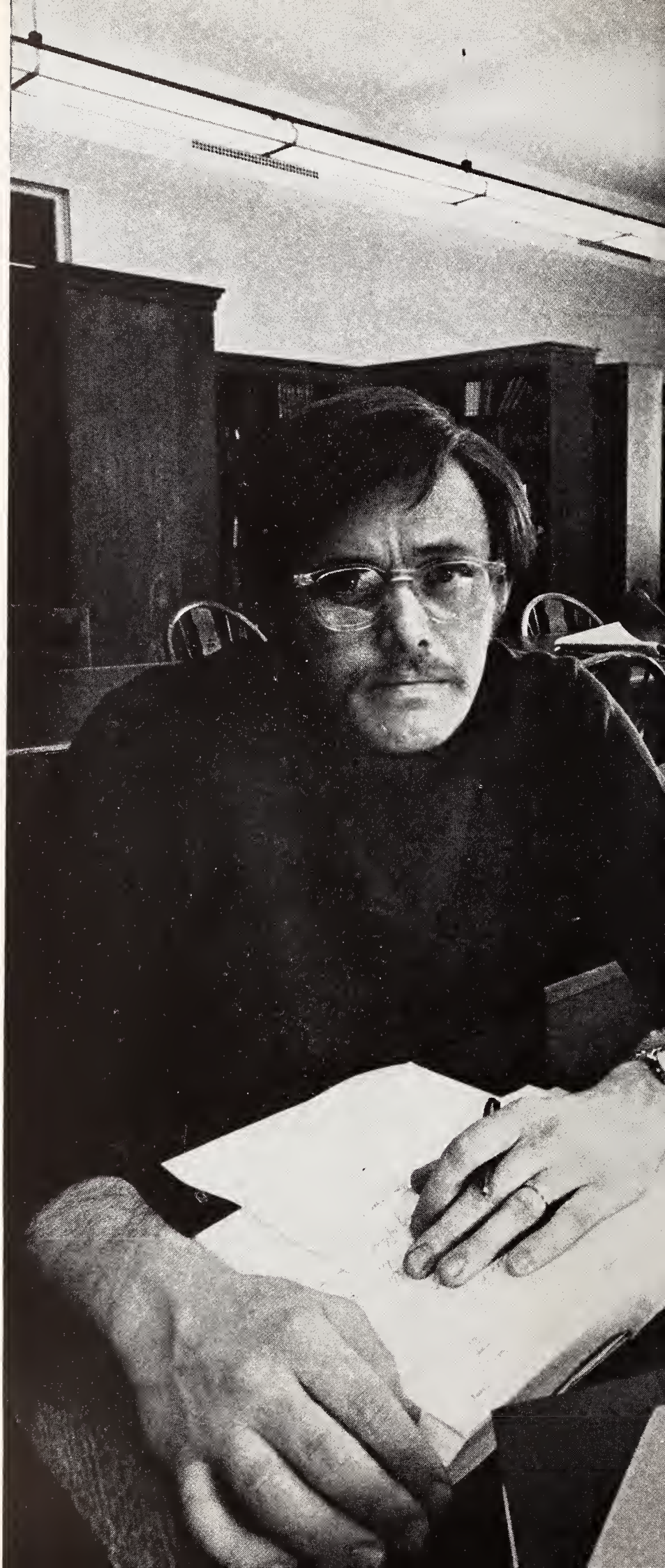
Ph.D.

thesis...in progress

G.I.

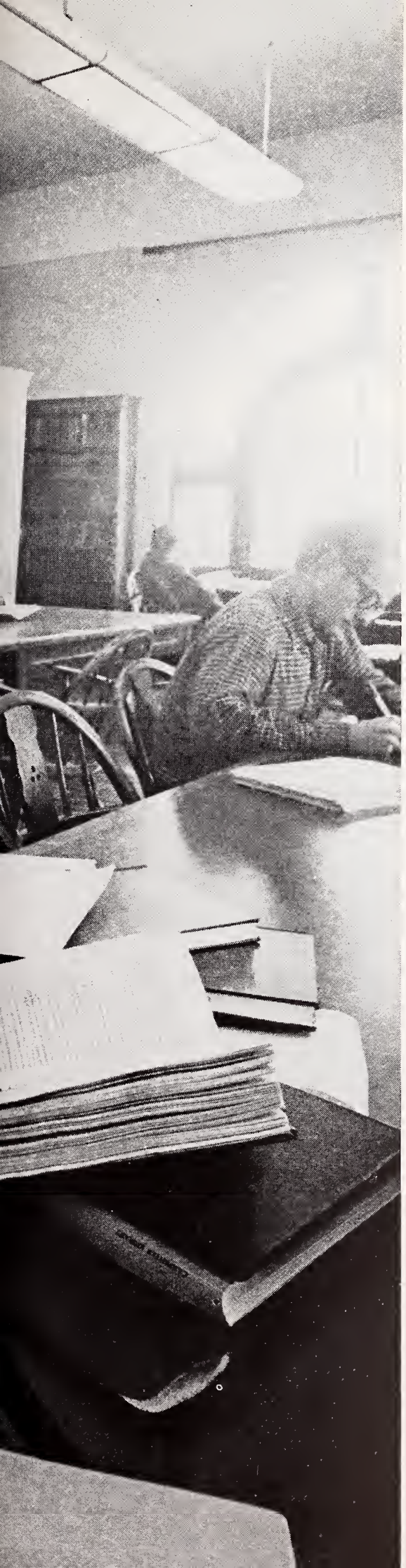
series and complete examination normal

(persistent indigestion)



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Nutley, New Jersey 07110



Rx

Valium® (diazepam) *t.i.d.* and *h.s.*

M. A. (class of '66)... Ph.D. (thesis, in progress)... letters that represent a young lifetime of work...a formal education nearing completion. But there are still long, arduous examinations to pass, a doctoral thesis to finish...a period in which stress is often converted into the gastrointestinal symptoms of psychic tension. For this kind of patient—with no demonstrable pathology—consider the usefulness of Valium (diazepam).

Valium can help relieve psychic tension and resultant somatic symptoms, within the first day for some patients. Valium is also useful in psychic tension with associated depressive symptoms. And Valium can help relieve psychic tension-induced insomnia with an *h.s.* dose added to the *t.i.d.* schedule.

Valium is generally well tolerated. In proper maintenance dosage it seldom dulls the senses or interferes with functioning. Side effects most commonly reported have been drowsiness, fatigue and ataxia.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms have occurred following abrupt discontinuance. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation, have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Valium® (diazepam)

2-mg, 5-mg, 10-mg tablets

to help relieve psychic tension
and its somatic symptoms

For elderly patients in need of a mild tranquilizer consider **Tybatran®**

brand of tybamate

(When you consult the Prescribing Information you may agree it makes good sense)



ESCRIBING INFORMATION

Indications: Tybatran (tybamate) has afforded symptomatic improvement in a variety of psychoneurotic disorders, especially in the treatment of the anxiety and tension components of psychoneuroses. Anxiety states manifested matically have responded to Tybatran (tybamate).

Tybatran (tybamate) has been useful in the control of itation in the aged and in the alleviation of some of the verse emotional accompaniments of senility.

Tybatran (tybamate) has been used with benefit in the atment of depressive symptoms associated with anxiety d other symptoms of psychoneuroses. However, it is not dicated for primary treatment of depressive states. It is t an antipsychotic agent, although it has been used as junctive therapy in some psychotic patients.

Dosage: One 350 mg. capsule, 3 times daily and two at dtime is suggested as the adult starting dose. Adjust to it individual requirements. Daily doses above 3000 mg. e not recommended.

Contraindications: Known hypersensitivity to tybamate. nce no studies have been done with this drug in human egnancy, it should not be used in pregnancy unless the otential benefit outweighs the risk.

Warnings: Administer cautiously to patients receiving henothiazines or other CNS depressants or having history of convulsive seizures (See Adverse Reactions). Consider possibility of additive actions with alcohol or other sychotropic agents, particularly phenothiazines or MAO hibitors.

Precautions: Avoid abrupt withdrawal after prolonged e, although withdrawal symptoms have not been reported date. Exercise caution in addiction-prone individuals. If mptoms of hypersensitivity occur, discontinue at once d initiate appropriate symptomatic treatment. Avoid tivities requiring optimal mental alertness if drowsiness vertigo are present. As with any new drug, use cautiously patients with history of drug allergies, blood dyscrasias, d hepatic or renal disease; periodic measurements of patic, hematopoietic and renal function should accompany prolonged and/or high doses.

Adverse Reactions: Most frequent reactions, rarely requiring discontinuation of tybamate, include drowsiness, zziness, nausea, insomnia, and euphoria. There have been few reports of skin rash, urticaria, and pruritus. Rare side ffects include hyperactivity, fidgetiness, flushing, and tachcardia, suggesting excessive stimulation; also ataxia, unreadiness, confusion, feeling of unreality, "panic reaction," tigue, headache, paresthesias, vertigo, gastrointestinal isturbances, glossitis, and dry mouth. Grand mal or petit al seizures have been reported in a few hospitalized psychotic patients receiving tybamate (up to 6000 mg. daily) gether with phenothiazines and other psychotropic gents, but not with tybamate alone. Consider the possibility of rare, serious adverse reactions such as may occur ith the related drug, meprobamate. If excessive amounts re ingested, gastric lavage and symptomatic therapy, including central stimulants as necessary, are recommended. efore prescribing, consult package circular.

Supply: Tybatran (tybamate) is available in green, sealed apsules of three strengths: 350 mg., 250 mg., and 125 mg. ach strength is supplied in bottles of 100 and 500.

A. H. Robins Company, Richmond, Va. 23220

A·H·ROBINS

The Appointment System Key to Time Management

(Continued from page 850)

It is important for you to analyze your present appointment system. Can it be improved? Can it be made more efficient? The practice of medicine is changing. There are more patients to be seen. More work is being delegated. Perhaps your entire system should be revamped. Here are some ideas that may be helpful:

- Analyze your appointment book at the end of the day. Was there a smooth flow of patients? Enough emergency time? Were all patients seen at approximately their appointed times?

- The person involved with making the appointments must know the proper time to allot to each procedure. A list of procedures and times necessary for their performance will provide her some guidelines. They should be furnished her in writing and should be revised periodically. Through delegation and other efficiencies many doctors are finding that they can see more patients in less time than ever before.

- Start your appointments as early in the day as possible. You can accomplish much more early in the day when you are fresh and rested.

- Stay on schedule—barring emergencies, of course. Your patient's time is valuable, too.

- Phone calls and other interruptions can ruin an appointment system. Have an office policy on screening calls.

- Schedule time for emergencies and phone calls. If your receptionist knows when you will be returning your non-emergency calls, she can inform the patient.

- We recommend the handing out of appointment cards when future visits are arranged while the patients are in the office. A request printed on the card, asking the patient to notify the office if the appointment cannot be kept will ease the "no show" problem.

- Have prearranged signals with your nursing assistant to help keep you on schedule when you have difficulty in dismissing a patient.

Some doctors still think good time management means assembly-line medicine. The contrary is true. Keeping on schedule, practicing efficiently and delegating details to qualified assistants enable the doctor to give more of himself to his patients and can have a bearing on the cost of medical care. A seldom-considered item in medical-care costs is the value of *the patient's* time. A 30- or 60-minute wait occasioned by an inefficient appointment system can easily double the cost of medical services to the patient or to his employer.

The appointment system is truly the key to time management and to a smooth and efficiently-run practice.

STATE DEPARTMENT OF HEALTH

James F. Speers M.D.

JAMES F. SPEERS, M.D., M.P.H., COMMISSIONER

Influenza, 1969-70

Recommendation of the Public Health Service Advisory Committee on Immunization Practices May 1969

The nationwide epidemic of A2 influenza in the United States in the fall and winter of 1968-69 showed the impact of a major antigenic change in the prevalent influenza viruses. The Hong Kong strain responsible for the epidemic was the most distinctive variant among A2 influenza viruses identified since the initial appearance of the A2 subtype in 1957. The 1968-69 epidemic again highlighted the problems that are encountered in rapidly developing and producing sufficient quantities of vaccine incorporating a new antigen.

Forty-four states reported widespread outbreaks of Hong Kong strain influenza; in six, involvement was less extensive. In all nine geographic divisions of the country, excess pneumonia and influenza mortality peaked sharply in early January, 1969.

In December 1968, Washington State reported an outbreak of type B influenza with Hong Kong strain A2. In January and February, 1969, 18 additional states reported type B influenza; it was widespread only in states in the central part of the country. Unlike Hong Kong strain A2 influenza which affected all age groups, type B influenza illness occurred primarily in school-age children.

INFLUENZA VIRUS VACCINES

The Division of Biologics Standards, National Institutes of Health, regularly reviews influenza vaccine formulation, and when indicated it recommends revision to include contemporary antigens. After characterization of the A2 Hong Kong virus in September, 1968, a monovalent vaccine incorporating the new strain was recommended.

While some influenza vaccines have achieved 60 per cent or greater effectiveness in conferring protection against the same or closely related virus strains, vaccines in general civilian use often have not been this effective. Final data on vaccine field trials conducted in the 1968-69 influenza season are being compiled. Preliminary data indicate that the monovalent Hong Kong strain vaccine was considerably less effective than would have been desirable.

For 1969-70, both standard and highly purified bivalent influenza vaccines will be available. The recommended adult dose will contain 400 chick cell agglutinating (CCA) units of Hong Kong strain antigen (A2/Aichi/2/68) and 300 CCA units of type B antigen (B/Mass/3/66). The highly purified vaccine is equivalent in potency to the standard vaccine, but contains less non-viral protein.

RECOMMENDATIONS FOR VACCINE USE

It is unlikely that there will be more than sporadic cases of influenza due to A2 strains in the 1969-70 season. Type B influenza may appear in areas where it did not occur in 1968-69.

Until good protection is provided consistently by influenza vaccine, *it is not recommended for healthy adults and children.*

In view of its limited effectiveness, vaccine should be considered *only for persons of any age with certain chronic debilitating conditions:* 1) rheumatic heart disease, especially mitral stenosis; 2) such cardiovascular disorders as arteriosclerotic heart disease and hypertension, particularly with evidence of cardiac insufficiency; 3) chronic bronchopulmonary diseases, such as asthma, chronic bronchitis, cystic fibrosis, bronchietasis, pulmonary fibrosis, pulmonary emphysema, and advanced pulmonary tuberculosis; or 4) diabetes mellitus or Addison's disease.

Although the indications for vaccinating them are less clear, older persons, who may have incipient or potential chronic disease, particularly cardiovascular and bronchopulmonary, should also be considered candidates for vaccination.

VACCINATION SCHEDULE

The primary series consists of two doses administered subcutaneously, preferably six to eight weeks apart. (Dose volumes for adults and children are specified in the manufacturers' labeling.) Persons at high risk who regularly receive influenza vaccines and had one or more doses of the monovalent vaccine containing Hong Kong strain antigen during the 1968-69 season require only a single full-dose booster of bivalent vaccine. Immunization should be scheduled for completion by early December.

Local or mild systemic reactions to standard influenza vaccines are common. They occur in up to

50 per cent of adults, and appear to be related primarily to the non-viral components of the vaccine.

Individuals who should receive influenza vaccine but have had severe local or systemic reactions to the standard vaccine might be given a highly purified vaccine subcutaneously.

PRECAUTIONS

Influenza vaccine should not be administered to anyone who is clearly hypersensitive to eggs, for the vaccine viruses are grown in embryonated chicken eggs.

Whole World Fights Common Epidemic

HELENE DEMING
Injury Control Division

As in other epidemics, there are three factors involved—the host, the agent and the environment. In motor accidents it is the driver, the vehicle and the road. The factor most frequently responsible is the driver, and since human beings are notoriously impervious to advice, civic bodies and the health professions must get across the information that will save lives.

In many accidents there are two collisions—the first is when the car meets an obstacle. The second is when its passengers and driver continue their forward trajectory until stopped by an obstacle. Persons ejected from their vehicles will be injured almost certainly and perhaps fatally.

To determine the cause of accidents one must consider the many factors that may be responsible. For example, some investigators report that the fatal accidents, rather than being a simple extension of less serious ones, represent a kind of their own. People involved in fatal accidents tend, the investigators claim, to have long-standing personal maladjustments, histories of anti-social behavior and alcoholic problems.

An American doctor notes that there are five to six million alcoholics in the United States, and that of this number, 80 per cent drive automobiles.

Four times as many deaths occur in rural areas as in urban ones, according to an American report. The proportion is reversed for non-fatal accidents. Even worse, two-thirds of automobile fatalities in rural areas take place at night. This means that better medical services must be provided in the country. All improvements involve expenditures. But when we read that, in the United States alone, accident costs totalled nearly $1,000 million a month in 1968, the expenditure seems small. (Figures from the 1968 Alcohol and Highway Safety report.)

"The driver of a car is under constant stress even on the open road. And with stress goes the danger of some illness suddenly becoming acute. The driver may not be able to get out of the traffic in time," states Dr. H. Hoffman, Director, Medical Clinic, St. Johannes Hospital, Dortmund, Germany.

Driving in today's traffic is not recreation but hard work. It is a complicated, many-sided task requiring a high sense of responsibility and capable of causing great stress. Experimental examinations of 600 healthy motor vehicle drivers have shown that driving imposes stress upon the circulatory system. This is true even on lonely country roads, and the stress increases considerably in urban traffic.

Safe and proper driving amounts to higher mental activity. The necessary reflexes and automatic responses never relieve the driver of his responsibility.

The fact that driving an automobile entails stress on the circulatory system means that driving can be a health hazard to persons with cardiovascular disorders. Up to one year after the occurrence of a myocardial infarction, the patient lacks the prerequisites for safe driving. After that interval the question of his fitness for driving has to be considered in the light of individual facts, including the capacity of his cardiovascular system.

Regardless of individual causes, diseases of the heart and of the circulatory system resulting in permanent or temporary disorders of the oxygen supply to the brain of drivers are incompatible with traffic safety.

On the basis of detailed analysis of traffic accident statistics, there can be no doubt that diabetes and, in particular, its complications may cause traffic accidents. Since before suffering a hypoglycemic shock, the driver cannot expect to be warned soon enough to bring his vehicle to a halt, the importance of hypoglycemia as a traffic hazard is obvious.

Other physical conditions may have a direct bearing on traffic safety. There is the diminishing capacity for adequate and constant performance under stress that occurs in the patients with liver diseases, kidney diseases and especially a hematological disease such as anemia or leukemia. Malignant tumors should also be referred to in this connection. There is a lack of reserve capacity to cope successfully with sudden difficult stiuations, especially after extended periods of driving.

Allergic bronchial asthma makes safe driving impossible because attacks of asthma occur practically everywhere as a result of hypersensitiveness to ubiquitous factors in the environment. Utmost caution is required in regard to medications for allergy (antihistamines), since they frequently cause drowsiness.

Persons suffering from hyperfunction of the thyroid gland should definitely not drive an automotive vehicle.

Of 139,205 persons who died on the roads in the Federal Republic of Germany from 1955 to

1964, experts estimate that up to 30 per cent could have been saved if they had been reached soon enough. This is one reason why an experiment is now being conducted near Frankfurt. A young German doctor is living in a caravan in a field. Nearby is a helicopter, placed at his disposal. The doctor and his pilot have a radio link with the road rescue services, and are alerted when a road accident occurs in the area.

Already, on many occasions, the helicopter has reached the scene well ahead of police and ambulance, and a number of crash victims owe their lives to this fact. One drawback is that the machine is difficult to use in built-up areas or near such obstacles as tall chimneys and telegraphic wires.

Also to be considered as a cause of traffic accidents is the drug factor. The amount of drugs people take for their health, or just to make them feel good is steadily increasing and presents a real hazard to road safety. This is true in the United States and in Europe, and is now spreading over the rest of the globe.

The medical profession has an important role to play. Patients taking psycho-active drugs or certain other drugs must be warned about their possible effects on driving. In some cases they should be told not to drive at all. Warning should also be given about combining these drugs with alcohol.

Despite the natural tendency to blame road conditions, and despite the evidence that vehicles themselves are often in a dangerous condition, the human factor remains the most important cause of road accidents. Only recently has a serious attack been made on this problem, and even now it is a piecemeal affair.

The problem of alcohol and the drunken driver, and the allied problem of drugs, are only now being brought into focus. Both are problems that can be covered by legislation. More difficult of solution but no less productive of accidents, are the indefinable problems related to individual personality—to factors operating perhaps for only a few minutes at a time—such as a sudden loss of temper or a feeling of intense frustration on the part of a driver held up in a long queue, or a pedestrian waiting to cross a busy road.

A most encouraging feature is that people all over the world are at last getting started to find out how the epidemic has come about and what can be done to check its spread, not only in highly industrialized countries, but in those where thus far the motor-car—the boon and the curse of modern living—has not yet come into general use.

References from World Health Organization publication WHO, February 1969:

"Keeping Death Off the Roads," by Nedd Willard

"Stress at the Wheel," by Dr. H. Hoffman

"How to Survive and Like It," by Sydney Smith

"Heartbeat and Traffic," by Tibor Farkas

"Prompt Help Saves Lives," by P. Almasy

"Dangerous Remedies."

"Accidents, Rarely Accidental," by Dr. P. F. Chanoit

"Man's Worst Friend," by Noel West

"The Accident Epidemic," by Peter Collins

Morbidity Report for Month of July, 1969

Diseases	July 1969	1969 to Date	1968 to Date	Most July Cases Reported From These Counties
Brucellosis	9	26	20	Scott
Chickenpox	46	3415	4784	Dubuque, Warren
Encephalitis, viral	3	7	0	Carroll, Jones, Louisa
German measles	18	2209	1746	Black Hawk, Des Moines, Hardin
Gonorrhea	427	2350	2269	Scattered
Histoplasmosis	2	9	19	Buena Vista, Scott
Infectious hepatitis	40	247	338	Delaware, Pottawattamie, Woodbury
Infectious mononucleosis	22	380	251	Johnson
Malaria, P. falciparum imported, delayed	1	3	0	Poweshiek
Malaria, P. vivax imported, delayed	1	6	6	Cerro Gordo
Measles	6	327	95	Black Hawk, Des Moines, Polk
Meningitis, aseptic	3	5	0	Keokuk, Lee, Pottawattamie
Meningitis, H. influenzae	2	8	4	Appanoose, Story
Meningococcal meningitis	1	15	7	Dubuque
Meningitis, type unspecified	4	13	14	Delaware, Des Moines, Linn, Mills
Mumps	49	3930	10304	Black Hawk, Cerro Gordo, Cherokee
Rabies in Animals	12	61	87	Scattered
Rocky Mountain Spotted Fever	6	7	1	Clinton, Johnson, Linn, Marion, Muscatine
Salmonellosis	16	77	44	Scattered
Shigellosis	12	25	45	Black Hawk, Linn
Syphilis	50	417	427	Scattered
Tuberculosis	14	85	73	Scattered

In the Public Interest



Iowa Physicians Want Medicaid to Operate Efficiently and Economically

Medicaid continues to occupy the front burner, insofar as Iowa health-care topics are concerned. In August the widely-discussed list of 1968 payments to Medicaid vendors was released, and the names of the providers of service who received the largest total payments appeared in the press. The release of unanalyzed data of that sort seriously concerned the State Department of Social Services, as well as the various vendor groups. They had hoped that "peer review" might be completed prior to any such disclosure, but it was not to be. Late in that month, in the wake of extensive newspaper discussion and in an effort to make the Iowa Medical Society's position known regarding at least a few aspects of the complex program, W. M. Krigsten, M.D., the IMS president, issued a statement that was substantially as follows.

* * *

In just a few paragraphs it is presumptuous for us physicians to attempt giving the public a complete understanding of Medicaid and its initial difficulties. But at least we want everyone to understand that Iowa's medical doctors—as key vendors or providers of service under Medicaid—do recognize and do accept their responsibility for helping make it work satisfactorily.

Iowa has had federal-state Medicaid since 1967. It is one of 44 states and territories that now are participating in the program. Medicaid was created by national legislation (along with Medicare) as part of the Social Security Amendments of 1965, and it was authorized in Iowa by state enabling legislation passed in 1967.

Iowa Medicaid (officially the Iowa Medical Assistance Program) provides broad health care for low-income individuals who meet the eligibility requirements. Essentially, Medicaid beneficiaries are the recipients of cash grants under "categorical" assistance programs—Old Age Assistance (OAA), Aid to Dependent Children (ADC), Aid to the Disabled (AD) and Aid to the Blind (AB). Approximately 90,000 Iowans are eligible for care under Medicaid.

Funds to pay for Medicaid services come from federal and state taxes, the exact ratio for each state having been determined by means of a complex level-of-state-economy formula. Iowa ranks high among the states in the percentage that it must contribute—45 per cent. Just 55 per cent comes from the federal treasury. Suffice it to say that in setting up the Medicaid program it was the intent of the U. S. Congress to assure indigents the same quality of medical care that had been available to the rest of the population, and insofar as possible to assure them the types and amounts of medical care suited to their individual needs.

Besides the recipients of care, the principals in the Iowa Medicaid Program are (1) the State Department of Social Services; (2) Blue Cross-Blue Shield, the carrier engaged by the Department of Social Services to process and pay claims; and (3) the vendors or providers of care.

"PEER REVIEW" WILL PROTECT AGAINST ANY OVERUTILIZATION

At the start of Medicaid in Iowa there was some understandable consternation over delays in determining eligibility, in processing and paying claims, etc. The emphasis then seemed to be upon getting the program moving, and it was expected that a refinement stage would follow.

During recent weeks the focus has switched. The administrative processes appear to have been improved substantially. Now, intense interest has centered upon the cost of the program. Impetus for cost appraisal came last spring from national proclamations by the Department of Health, Education and Welfare and the Senate Finance Committee. In the steady barrage of allegations from those sources about "excessive costs" and "abuses," however, *it is noteworthy that no reference was made to Iowa or to any Iowans.*

The statements emanating from Washington, together with the reactions of local news media to those statements, served as the prelude for a debate in Iowa concerning publication of the names

of individual vendors and the amounts that had been paid them. From the start, the State Department of Social Services and the major vendor groups, including the IMS, agreed that the data should eventually be released. At issue were the questions of *when* and *how*. The Department and the vendor groups contended that time should first be allowed for the respective professional organizations to study the fees billed by those of their members whose names were on the list, and to report their findings. The process has widely and appropriately been referred to as "peer review."

The position taken by the IMS regarding release of the names of vendors and the total amounts paid to each stemmed from the virtual certainty that those who had received the largest total payments would immediately become suspect in the eyes of the public. The IMS abhorred the thought that any provider of service might be supposed a villain when in all likelihood nothing could be farther from the truth.

Many factors help to determine the amount to which a provider of Medicaid service is entitled, and they require expert evaluation. In the case of a physician, they include his type of practice, his location, his "overhead," etc. In the "peer review" process these elements are scrutinized by the people most competent to evaulate them, and appropriate significance is attached to each. Following that conscientious review, sound decisions can be made as to whether his charges for specific procedures have been reasonable or excessive.

The current "peer review" being conducted by the medical profession actually is an extension of a program that has been in operation for some time. There are 11 district review committees, each composed of seven physicians. These committees are now considering the services rendered by and the fees paid to the 14 Iowa doctors of medicine whose total 1968 Medicaid receipts exceeded $15,000, according to the data supplied to the IMS. The findings will form the basis for a report of the Department of Social Services.

"Peer review" had functioned for a year or more, in Iowa, as a part of the slightly older Medicare program. There was a committee in nearly every county for that purpose, and some of them made analyses and recommendations regarding cases that the Medicare carrier (Blue Shield) had referred to the IMS. At the start of the Medicaid program the IMS suggested the use of "peer review" in settling questions relating to it, but that proposal was not adopted until recently.

As applied to Medicaid, "peer review" will principally concern the utilization of services. In the work performed by physicians, utilization has to do with frequencies of examinations and treatments, with amounts and types of medicine prescribed, etc. The review committees will attempt to determine whether all of the services charged for were rendered, and whether they corresponded to an acceptable therapeutic pattern.

Physicians think that "peer review" certainly ought to have been completed prior to the publication of the Medicaid payment lists. Singling out the physicians who had received the largest total payments implied—mistakenly, no doubt, in most instances—that they had overcharged for their services. That implication was particularly unfortunate for it jeopardized the continuance of the program.

According to national reports there are indications that physicians now rendering necessary care to Medicaid patients may refuse to continue because their integrity might again be questioned.

Actually there is little possibility, under either Medicaid or Medicare, that a physician has been or will be paid an excessive fee for a particular service. A computer determines fee levels on the basis of a "usual, customary and reasonable" formula, and claims are paid at or below the ceiling thus established. A greater payment is possible only if it can be shown that there have been extenuating circumstances in the particular case that has been billed for. In the Medicaid and Medicare programs the element of reasonableness is an important factor in cost control, and only rarely does a payment exceed the mathematically-established level.

Iowa physicians, like all other citizens of the state, are vitally interested in the wise use of tax dollars and particularly in the efficient and economical management of governmentally-financed health services. In addition, they are people of integrity and principle. The total IMS program including "peer review," has two stated objectives: (1) alleviation of suffering, improvement of health and protection of lives for the public; and (2) maintenance of high standards of ethics and conduct for the health professions.

Confidence in one another's honesty is essential in every undertaking that involves two or more persons. Americans can plan for the future and seek to improve their lot only if they presume that their associates, with no more than rare exceptions, will do what they have promised. The rare instances of fraud must be found and punishment meted out, but when people are generally distrustful, suspicious and cynical—doubtful of the honesty of large numbers of their fellows—the promise of a better tomorrow stands in extreme jeopardy.

Despite the epithets that have been used in recent news stories, there is no reason for anyone's concluding that all—or even that many—of the physicians, dentists and others to whom the government paid the largest amounts for services rendered to Medicaid eligibles during 1968 received those sums for any reason other than that they served large numbers of such patients.

With the limitations and the evaluation of procedures now in effect, we are confident that Medicaid can be made to accomplish what was expected of it. We believe that the "peer review" system can do more than any other single thing to assure this success.

MEDICAL HISTORY



Pioneer Medical Practices

EUGENE H. McCAFFREY, M.D.
Des Moines

THE SUBJECT on which I have been asked to address you on this date of March 31, 1969, at the State Historical Building, in Des Moines, is one of a series on Iowa history chosen by the sponsor, the Department of Adult Education of the Des Moines Independent Community School District. It can be properly covered, and homage can be paid to the dedicated and unselfish physicians of that period only by comparing the advanced technological civilization of today with conditions 50 or 75 years ago.

Today our hospital laboratories have computers that are capable of doing 50 to 100 tests of the urine and blood in a very few minutes. Available for instant use are the x-ray, the electrocardiograph, the electroencephalograph and machines to measure lung capacity and all of the different functional tests of the adrenals, the pituitary, the heart, the liver, the pancreas, the kidneys, the thyroid, etc. Blood banks and electrolyte solutions, antibiotics and a large variety of drugs are obtainable in a matter of a few minutes.

EARLY DIAGNOSTIC TECHNICS

The pioneer physician had no such luxuries. He was lucky to have a microscope for blood counts, and stains for slide smears. He did possess equipment for the commoner urine tests, for albumen and sugar, but those comprised the bulk of his laboratory's capabilities. For his diagnosis of a patient's disease he had to rely almost entirely upon his experience and upon his skill at correlating the history, the clinical symptoms and the physical findings. Usually his first step was to look at the patient's tongue, the condition of which might indicate the type of illness. Later on, the small towns received electric current, and some of the physicians there obtained x-ray apparatus. The first x-ray I ever saw was a hand-propelled high-frequency machine that generated enough gamma rays for a photograph. It was in the office of Dr. Post, at Maquoketa, in about the year 1906.

I can think back to my boyhood days, before automobiles or paved roads, and remember seeing the physician, in the early hours of the morning, returning from a long trip into the country. In the springtime his horses were splattered with mud, and their tails had been braided. In below-zero winter weather, the sides of the horses' faces and necks were covered with frost and their bodies were steaming as they stood while the doctor removed the heavy fur robe from his lap and emerged with some difficulty from his sleigh or carriage wrapped in his ankle-length fur coat.

THE CONTENTS OF THE DOCTOR'S BLACK BAG

Before taking you on a wild trip and introducing you to many of the physicians whom I knew and telling you of the experiences that befell me, a half-century ago, I believe it is well for me to mention some of the medicines used in those days. Practically every physician dispensed his own. He had a drug room in his office containing five-gallon bottles of liquids such as bitters for the appetite, cough medicine, and perhaps some freshly made infusion of digitalis for heart disease, since it was less irritating to the stomach than was the powdered form. In those days there were only a few reputable pharmaceutical houses, and at that time they had not extracted the active glycoside which is administered today. The usual physician did not have—or did not take—time to roll medicine into pills, but dispensed them as powders neatly folded in strips of paper. The few pills he carried in his medical bag had been obtained from pharmaceutical houses and consisted of quinine, aspirin, cathartics, etc. In his medical bag he also carried a few two-ounce bottles containing fluid extract of ergot for the bleeding new mother. Tincture of iodine for injuries, aromatic spirits of ammonia for respiratory and cardiac stimulation, and there were other favorite forms of medication for emergencies: paregoric, camphorated tincture of opium. Those were not overlooked when little Willie had the tummy ache. For the flu—or la grippe, as it was then called—aspirin and Dover's powder were prescribed. The latter consisted of 10 per cent each of ipecac and opium, and it was always welcomed by the patient, for it assured him a comfortable night. In those days there was no U. S. Food and Drug Act, so cough

medicines containing laudanum—Dr. King's New Discovery for Coughs, for example—could be bought right off the shelf at the drug store. It was dangerous to keep it within reach of the children, for it had a pleasant taste. Peruna was judged a very good tonic, especially after the Volstead Act was passed, for it contained 35 per cent alcohol. Scot's Emulsion of Cod Liver Oil was the first vitamin medication. I remember taking one dose of it. If you could keep it down, the cat would follow you all day.

The pioneer physician did have many excellent drugs to use, and if he understood the proper dosages and actions after absorption, they did benefit patients a great deal. Not only were they life-saving in many instances, but they left patients with healthy bodies thereafter. Most people, in those days, were not constantly at high tension and running the "go-go" way of today, but the present tranquilizers would have been very helpful for the few with nervous disturbances. Instead, they had to rely mostly upon the bromides or opiates. As I look back, I realize how much the pioneer doctor would have been helped if he had had the sulfas and the antibiotics to use in treating cases of erysipelas, rheumatic fever, septicemia and pneumonia. They also would have helped him avoid lancing many a child's eardrum to prevent mastoiditis.

Primary anemia was considered a fatal disease in those days. Splenectomy and many other procedures had been tried to no avail. Then it was discovered that if a person could eat nearly three pounds of nearly-raw calf's liver daily, his blood would return to normal. That would have been fine, but all stomachs seemed to reject that type of diet. Later the Eli Lilly Company put concentrated extract of calf's liver into capsules about the size of a man's thumb, and I believe the poor patient was supposed to take at least six of those horse-size medications daily! "That was revolting!" as Jimmy Durante would say, and most patients' stomachs felt that way about it, too. Within the past few years, a preparation has been perfected which, when 0.5 cc (seven or eight drops) have been injected intramuscularly, achieves the same effect as 30 lbs. of raw liver, in building up the blood. I personally have given it for some years past, and have been happy with the results. So let's ask Uncle Sam and his Food and Drug Administration to be mindful of the great work that the pharmaceutical firms' chemists have done for humanity!

A MEDICAL SCHOOL IN THE EARLY 1900's

Up to this point, I have talked mostly about diagnostic and treatment methods that were in use a half-century ago. Now please go along with me to meet some of the physicians of those early days, and to share some of my own experiences, for I too have done some pioneering.

In 1914-1915, my senior year at the University of Illinois College of Medicine, I was president of my class, and one of my duties in that capacity was to keep attendance records. Thus I had frequent occasions to visit the faculty room and to overhear or even participate in the professors' conversations. Subsequently I was invited to dinner at the homes of Dr. Charles Spencer Williamson, head of the Department of Medicine, and Dr. Lewis Heintz, who also taught medicine. Dr. Albert J. Ochsner, professor of surgery and clinical surgery and head of the Surgical Division at Augustana Hospital asked me for the opinion of my classmates regarding the legislative program of the American College of Surgeons. I mention these facts not only to express my gratitude for the consideration and kind interest shown me, but also to portray the character of those internationally prominent and respected men. They were very much interested in the young men who were to enter the profession, and they tried to be helpful to them. Each professor who lectured to the class came dressed in a manner befitting the culture of the times for men of prominence. Each wore a Prince Albert cutaway coat and matching striped trousers, a heavily starched white shirt, large gold cufflinks and a dark tie. Usually he had a heavy gold watch-chain across his vest.

In those days over 95 per cent of infants were born in the home. For practical obstetric experience, members of my class were allotted two weeks' training under Dr. DeLee, professor of obstetrics at Northwestern University, in his clinic on South Halstead and Newberry Streets. The district was known as the ghetto. A call would come in from somewhere in the district that a new baby was on the way, and the student, furnished with an obstetrical bag and sometimes with a nurse to accompany him, would make his way to attend the delivery. He had been taught how to make a substitute Kelly pad by rolling four separate newspapers, one for each side, and pinning them in place between the oilcloth taken from the kitchen table and the bed mattress, with safety pins. The patient's skin would be cleansed with Lysol solution, and clean, unsoiled newspapers would be placed over the pad. It was supposed that the newspapers had been sterilized by the heat they had received from the printing press, and thus that they provided a sterile field despite otherwise filthy conditions! Many of the patients could speak no English, and most of their homes were short of furniture and food, as well as of other supplies. Daily, nowadays, we hear of poverty, as though it had not always been with us. I remember attending one woman in childbirth while two children slept alongside her on straw that had been thrown on the floor in a corner of the room.

In that period there were few large hospitals. Even Des Moines was without a county hospital,

so there were insufficient places for recent medical school graduates to intern. Therefore the larger hospitals conducted competitive examinations. I was anxious to get away from the noise of Chicago, and I thought that either the Minneapolis or the St. Paul general hospitals would be preferable. So I wrote an examination for each and achieved the required grades. On the advice of a friend who was on the faculty of the University of Minnesota, I accepted the Minneapolis General Hospital appointment, and served a year's rotary service there, plus an additional six months in surgery. I chose a December appointment rather than one starting in July because I felt rather tired after a strenuous senior year, and I thought that six months' rest at home in Maquoketa would help me get the best out of my hospital training.

A RURAL LOCUM TENENS

I had been at home, enjoying my mother's cooking, for only a few days when Dr. Littlefield sent for me to come see him at Andrew, a small inland town nine miles to the north, the place where Ansel Briggs, our first governor, came from. On arriving there I found Dr. Littlefield ill with an acute nephritis, and he asked me to look after the people of his community during his hospitalization, or until the time came for me to leave for Minneapolis. It seemed that I wouldn't be overworked, and there was a lot of fresh, unpolluted air to breathe, so I accepted. I believe the town's population was 123, and the doctor's office was up over a farm machinery store. The entrance was by means of an outside stairway, much like the one leading to Dr. Adams' office in the TV series "Gunsmoke."

Other than recounting a couple of incidents that impressed me, I want to honor the dedicated service that Dr. Littlefield gave to those in his charge. He served a large area to the east, north and west of Andrew, in a very rough terrain covered in spots by very dense timber. Since there was no dentist in the area, he extracted teeth in emergencies, as well as practicing medicine. On occasion he arranged to be driven into the country to deliver a baby, when he was so sick that he had to lie in the bottom of his sleigh! He never kept account books. When someone asked to pay him he stated the amount owed, but he sent no statements to patients who failed to ask him. Of course there was no income-tax records to keep in those days, but at his death his lack of ledgers made his estate difficult to settle.

One of my first calls required that I drive about six miles east of town. I was directed to take a certain narrow and none too well-kept road. It led up steep hills and down rather rapid declines. I continued driving until I saw a lane leading off into the timber to the left. There, as I had been told I would, I found a white cloth attached to a fence post. As I proceeded up the lane the foliage became very heavy, and I remember thinking, "What an ideal spot for an Indian ambush!" When I finally reached the clearing an old, unpainted house stood before me with a couple of dilapidated barns in the rear. I drove up close to the house to hitch my horses to the wheel of an old wagon, and at that moment two young porkers weighing about 100 lbs. each darted out of a broken panel in the kitchen door. When I entered the house I found a few chickens which were also free to come and go, but unlike the pigs had remained inside.

Standing in the bedroom doorway was a rather large, unshaven and sloppily dressed man. His greeting was, "The woman's in here, Doc." His wife had a high temperature, a swollen throat and dense membrane extending down both sides of the fauces. I was rather sure that I was looking at a strep throat, but I took a culture before mixing a solution of tincture of iodine and glycerin taken from the bag that I carried. I gave the throat a good swabbing, with the aid of some cotton wrapped around the end of a long stick. I left her some medicine to use as a gargle every hour that she was awake, and a supply of aspirin which was to be taken every three hours.

Throughout all of this I don't remember that the husband asked a question or, indeed, said anything. I was about to leave when a 14-year-old boy came in and said, "Pa, the gray didn't eat her oats this noon." The man immediately replied, "You go right out and take her harness off! That horse has got to be sick, and we don't want a heave horse on our hands." In later years I often told patients that story when they were insistent upon returning to work before they were physically capable.

IMPROMPTU DENTISTRY

The other memorable occurrence during my short fill-in period at Andrew took place at about two o'clock one morning. I heard someone calling beneath my window, "Oh Doc! Oh Doc! Oh Doc!" When I opened the door that had once led to an upstairs porch (It was fortunate that I had no tendency to walk in my sleep), and looked below, my caller explained his difficulty: "I have one hell of a toothache, and I've drunk a full quart of whiskey but it hasn't done a bit of good. Please come down and pull it out." I told the man to go over to my office and that I would have a look at it, thinking that perhaps the difficulty was a sensitive exposure resulting from a cavity, and that a little phenol packing might give him some relief. When I reached there, I found that the lower left third molar, about which the patient complained, appeared perfectly sound, but he insisted on my pulling it, anyway. Though Dr. Littlefield had a full set of extracting forceps in his instrument

case, I had had no training in their use. I got out an instrument catalog, however, decided upon the correct instrument, placed it firmly on the tooth, and began tugging and tugging to the point where I was afraid of fracturing the patient's jaw. Having made no headway at lifting the tooth from the socket, I was anxious to acknowledge my inability to do the job, but the man insisted that I continue. After I had wrestled with the tooth for about 20 minutes longer, he raised his hand to indicate that he wanted me to stop. "The pain has all gone," he declared. "You must have fixed that tooth. I feel fine." I assured him that I was glad he thought so.

On my next trip to Maquoketa I related my experience to Dr. Ed Phillips, a very excellent dentist. He laughed heartily and told me he had done work on the whole of that patient's family, and that they had the toughest teeth to extract in the whole county. On the chance that I might be faced with a similar problem later, he demonstrated his technique to me by letting me observe as he attended a couple of patients who had come to him for extractions. Indeed his instruction proved valuable to me, a few years later, for the British Army, to which I was attached, had no dentists, and its physicians had to do all of the needed tooth extractions. Also, when our battalion occupied territory formerly held by the Germans, the civilians had had no dentist available to them for three years! Thus I frequently found civilians in my "sick parade" seeking tooth-extractions.

WHEN TUBERCULOSIS WAS THE WHITE PLAGUE

In 1915, when I began my internship there, Minneapolis General Hospital occupied four separate buildings. The general building housed administration, the medical, surgical and obstetrical services, and rooms for the interns. The new "contagious hospital" was close, and Lymanhurst, the pediatric service, was not far away, but the "tubercular hospital," then called Hopewell, was far distant—about three good-sized blocks beyond the end of a streetcar line. There were no other buildings near it. As one alighted from the streetcar on a clear, cool night, he immediately began hearing the coughing and constant hacking noises coming from the open windows of the hospital.

In those early days there were no specific drugs for the treatment of tuberculosis. Nourishing food and fresh, unpolluted air, along with symptomatic medications, were about all that the medical profession could offer the unfortunate patient. It was pathetic to see patients daily sinking away to no more than skin and bones, and then into coma and death, but it was heart-rending to attend a patient whose lesion had ruptured a large blood vessel, causing a spattering of blood and some times a projectile vomiting of blood over the side of the bed and onto the wall! Once more I say: "Hail to the chemists and physicians who have been untiring in their efforts to find definitive treatment regimens for this terrible disease." Isoniazid, streptomycin, paraaminosalicylic acid and ethambutol, along with the isolation of patients and other preventive measures, have done a great deal in keeping the white plague, as I believe it was once called, under control.

In December I was assigned to the tubercular unit for a month. On Christmas eve the temperature was −32°F., a 50 mph. wind was blowing around the corner of the building, and the room allotted to the house doctor was in the basement and was heated only by the steam pipes that were held on hangers close to the ceiling as they carried warmth to other rooms. Consequently, the lower half of the room usually was uncomfortable in cold weather. I went up to the main office, on that Christmas eve, thinking that it would be more comfortable, and found the nurses—about seven of them, and all 15 to 20 years my senior—having a Christmas party, with a small decorated tree on the table. They invited me to join them, and I accepted. After listening to them sing a few Christmas carols and receiving an apple off the tree as a gift, I walked out into the office and picked up the Intern Record Book, in which we signed in and out. After reviewing some of the names of men who served there, I pulled out my pen and wrote in the book:

Why should I, thus mortal be
To abide in this place of misery?

Hath my lot been cast an age before
That I should be forced to do this more?

Hath each cough, each hack, or sighing moan
Come to warn me of my doom?

Am I to fill a place in that pre-celestial choir
Left by some member who fortunately did expire?

Ah no! shout I, in a voice half loud;
Around me these germs will place no shroud!

Then hasten I to my cellar dungeon cold
And dream of fears I have not told.

World War I sabers were rattling in Europe at the termination of my intern service. It was rather certain that this country would be directly involved, and that I probably would enlist. Thus I gave no serious consideration to the selecting of a location for the practice of my profession. Dr. D. M. Strang, who operated a very nice and well-equipped hospital at Sprague, Washington, had written me, requesting that I relieve him while he came back to do some postgraduate work at the University of Minnesota. I decided to accept his offer, and I arrived at the depot in Sprague one morning at seven o'clock. Dr. Strang was at the depot to meet me, and we got into his Mitchell Six automobile, a touring car with the top folded back. He said, "Now, doctor, we'll go down to the hospital, have a snack to eat, take out an appendix, and then make a 55-mile call in the country, and get back to town in time for me to catch the train going east at 4:00 p.m." Things at the hospital went along very smoothly, and it was

not long before we were started on that 55-mile trip. The country highways were mostly trails in that area. The soil is volcanic ash, and it was pulverized into a fine powder by the wagons hauling wheat at that time of year. Besides the dust, there were chuck holes to contend with. Dr. Strang was a very fast driver, and as we bounced from chuck hole to chuck hole, clouds of dust rolled into the car. It was not long until both of us looked as if we had just emerged from some coal pit. On all that trip there was not a living tree to be seen. There was nothing but sagebrush and scabrock. On our return, when we were only a short distance from town, Dr. Strang pulled out his watch and cried, "Fine! We'll make it back to town in time for me to make the four-o'clock!" I replied: "Perhaps for me to catch the four-o'clock." I never had seen such barren country, and I was thoroughly disgusted. "Ah," he said, "you wouldn't let me down and do that! If you knew how long I have been planning this trip!" Well, I guess there was enough pride in my make-up so that I couldn't stand being thought a quitter, so I consented to stay on, and it was he who took that train.

"BABY SPECIALIST"

I was told shortly that the country would grow on me if I lived with it a while, and I found that to be true. A sister of the appendicitis patient came to the hospital a couple of days later, and with her she carried a baby that was little other than large, sunken eyes and skin and bones—an example of complete starvation. She said that three different doctors had informed her that no food would agree with her and that she was certain to die. When her breasts had dried up, she had tried the usual upper two-thirds of a quart of milk, but the baby didn't tolerate it. Then she tried Eagle Brand milk in cans, and then Mellin's Food. Instead of putting the Mellin's Food in a weak milk mixture, she was giving it only in water, thus eliminating all the protein and fat from the diet.

Evidently Finklestein's Infant Feeding Program hadn't penetrated that far west. That regimen provided the infant a certain number of calories daily, in proportion to his weight and age, and one could increase or decrease the amounts of fat or of carbohydrates in accordance with the child's tolerance and the character of his stool. Feedings for the normal child were at four-hour intervals. Undernourished children with small stomachs of course had to be fed more frequently if they were to consume the required number of calories per day.

I realized that the starving child would have to have immediate treatment, and because the mother lived about 65 miles from town, I persuaded her to leave the child with us at the hospital. During my pediatric training I had learned to prepare protein milk from cow's milk by separating the casein and whey with the aid of essence of pepsin. This the nurse and I immediately did, for protein milk was not on the commercial market as it is today. At hourly intervals, for a few days and nights, we fed the child small amounts of this protein milk, and improvement could be noticed. Then a new mother came into the hospital, and we were able to use some of her fresh breast milk. It was not long before the child was on regular milk and a regular schedule, and could be returned home. The news of that child's recovery spread across the countryside rapidly, for the child's relatives were widely scattered.

One night a long-distance call came to me, while the local dentist and I were having a nice visit. The woman calling me wanted to know whether I were a baby specialist. I said no, that I was just a general physician and surgeon. She said, "You did cure the Reeves baby, didn't you?" I conceded, "Yes, I took care of that child and the last I heard she was doing very well." She then told me that her three-year-old daughter had a high fever and was having slight convulsions. I asked whether she had had injuries such as penetrating wounds, or had been exposed to contagious diseases, inquired about the condition of her bowels, about the presence of pain, vomiting, etc. Her answers were negative. But she said the child had been rather constipated. She lived about 65 miles from Sprague, and she wanted me to come see the child, explaining that cold cloths had to be constantly applied to the girl's head to control the fever, and thus she couldn't take her to me. I told her I could never find the place, especially at night, and directed her to give the child two tablespoonsful of castor oil. (Note—dosage of castor oil should always be sufficient for complete evacuation that it does not remain in bowel to become rancid.) The dentist then interrupted the conversation to say that he knew the way and would take me to the patient.

Well, we started out, but we hadn't gone very far before a fog set in. There was no road and there were no fences to follow—just a trail that forked occasionally. Needless to say, we soon became lost, but we kept driving. We drove for about four hours, most of the time at about 15 mph. Finally the dentist suggested that I stop the car so that he could get out and look around. Soon he returned and said he had found out where we were. "The Breaks," he said, "are just ahead of us, and it is a good thing that we stopped when we did." I wanted to know what "The Breaks" were, and he said that they were a fault or declivity at which the land dropped steeply to a generally lower elevation.

We had gone about 15 miles out of our way, but we arrived safely at our destination at 5:30 a.m. The child, in the meantime, had had a good bowel movement as a consequence of the dose of castor oil, and was sitting up playing!

WORKING ON THE RAILROAD

After Dr. Strang returned to Sprague I remained only a short time, for Dr. Eugene Hamley, whom I had known as a boy in Maquoketa, induced me to come down to Pasco, Washington, a division head of the Northern Pacific Railroad, where he was a railway surgeon and, in addition, had a large private practice. I remained with him for a time, and then went to Seattle and enlisted in the Army Medical Corps. I had some interesting experiences in and around Pasco that deserve mentioning. One night a call came in asking the Railroad work crew to come up the Snake River about 20 miles, where a boulder had rolled down onto the track and had caused a derailment. The locomotive fireman had suffered a broken arm, and it was requested that a physician be sent with the crew. I went along, and reduced the arm fracture and made the patient comfortable in splints, I was waiting for the track to be repaired and the locomotive put back upon it when an old rancher came along. We struck up a conversation, and I asked him whether there were any big game in that territory. He replied, "No, not much. There's more up higher in the hills. But night before last I heard my hens making a noise. I picked up my gun and crawled along the side of the chicken house to look through an open window frame. I saw a big, dark object in there, and fired at it four or five times. Then I went and sat on my porch until daybreak. When I went down to see what I had killed, I found a cougar!" Needless to say, I didn't stray far from the caboose!

The other incident took place at about 9:00 one night when a call came in that a man had been shot down the Burbank side of the Snake River. There was no bridge across the river, and a ferry had to be used. I drove down to the crossing awakened the ferryman and had him take my car and me across the stream. He said that the current was too swift for him to try to keep the ferry on that side of the river until I was ready to return, and told me to blow my car horn and flash my lights over onto his cabin so that he would know when to come over to get me. It didn't take long for me to find the patient and treat his wound, so I was back at the ferry-landing at midnight. I blew my horn and flashed my lights again, again and again, but to no avail. Thereafter all I could do was to curl up in a robe, listen to the wolves howl their messages and twigs snap as the animals darted through the brush, and await the ferryman's convenience.

"SPECIALISTS UNTO THEMSELVES"

The period I have covered is the one that preceded my entrance into the Army and my subsequent location in Des Moines—all of it more than 50 years ago. I do want to impress on you that the physicians of those days were all specialists unto themselves. If the patient's eyesight was diminishing so that he couldn't read, the doctor usually had an eyeglass refracting case, and he could examine his eyes and order correct glasses for him. If a skin rash had appeared, the doctor was supposed to differentiate between pemphigus, chickenpox and smallpox. He frequently administered ether anesthesia himself before removing a child's tonsils in his office or in the family's home. Some of us even gave spinal anesthetic and then turned the patient over and took out his appendix or amputated a leg.

In concluding my thoughts on the past I do want to pay homage to my former classmates—most of them already departed—who had parts in the pioneer practice of medicine. There were 102 members of my graduation class, and only 12 were able to attend our Golden Jubilee in 1965. One of the younger members of the class, who practiced in Chicago, entertained all of us at a dinner at the Athletic Club there. We thought at that time that there couldn't be more than 18 or 20 of us alive, and that was four years ago.

One of my classmates said he had started to specialize in tuberculosis, but became fearful of carrying the disease home to his two young sons, and instead went into general medicine and surgery. I recited the verses that I included earlier in this paper, to show him that others had had a similar phobia.

In writing Dr. Vander Kloot a note of appreciation for his hospitality during the Chicago meeting, and knowing his wife's interest in verse, I enclosed the following:

LIVING

Once again to the large city I did go,
To man-made structures and mechanical flow.
From a hotel window high, I did look down
To see many beings walking their daily rounds,
Lunch bags in hand, bodies erect and looking straight ahead.
Their steps were brisk, and rhythmical their tread.
On they marched, and whither I am sure they must have known,
Though they appeared like string-puppets from some sideshow.
The kind of life they lived, it would be hard to guess,
But in it, surely, there must be a sort of happiness.

For me, I like a place where the tension is low,
Where there are no clattering sounds or whistles to blow.
Where birds can freely soliloquize in song
When the night's darkness has entirely gone,
Where winds can whisper through the trees
And perhaps laugh with either you or me,
Where the air we breathe and the water too are pure,
And of the food we eat, we can be sure,
Where the evening sun, in the distant sky, sinks very low,
Casts upward its magnificent glow.

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BRIEF SUMMARY/**Indications:** Ambar suppresses appetite and helps offset emotional reactions to dieting. **Contraindications:** Hypersensitivity to barbiturates or sympathomimetics; patients with advanced renal or hepatic disease. **Precautions:** Administer with caution in the presence of cardiovascular disease or hypertension. **Side Effects:** Nervousness or excitement occasionally noted, but usually infrequent at recommended dosages. Slight drowsiness has been reported rarely. See package insert for further details.

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Iowa Association of Medical Assistants

Our Midsummer Seminar Was a Hit!

The IAMA's second midsummer seminar for medical assistants was held on August 2 and 3 at the Carousel Inn, in Iowa City. Miss Margaret Hansen, of Davenport, the IAMA Education Chairman, organized the meeting, in cooperation with Wm. D. Coder, Ph.D., who formerly was on the staff of the Extension Division of the University of Iowa, and presently is director of conferences for the Carousel Inn.

Those of us who had attended last year's seminar were impressed with the large number of medical assistants who attended this year's program. This year we were overwhelmed! The 160 girls who registered were ample proof that Iowa medical assistants are interested in continuing their education, that they do want to do a good job in their respective offices, and that they do want to help their physician employers as much as possible in coping with the maze of red tape and paper work to which they are being subjected.

As is always the case, we went home with pleasant thoughts of the new friends whom we shall look forward to seeing at other meetings.

Communication is a big word these days, and at all of the sessions the many ways of communicating were stressed. We must be able to listen as well as to speak and to employ the non-verbal techniques of communication, the facial expressions or mannerisms which speak volumes. But we always must make sure that we understand what we have been told, and that we are completely clear in what we tell to others. Repeatedly, we must ask ourselves: "Has the patient understood those instructions?" and "Is it possible that the phrase I just used may convey a meaning other than the one that I intended?" Two different words very rarely mean exactly the same thing. Be sure to use the right word. To exemplify the fact that the same words can mean different things to different people, four teams of four girls each were selected, asked to consider a list of words, and then asked to define them for the assembly. All of the teams did very well, and it was most interesting to hear their different interpretations. However the "word champs" from Scott County, were Mrs. Jean Gold, chairman, Mrs. Erna Haut, Mrs. Margaret DeHaven and Mrs. Nancy Winter. They gave us thoughts that I feel are worth repeating: *Contentment*—knowing happiness and enjoying it, with peace of soul. *Happiness*—a contagious state of physical and emotional well being. *Enjoyment*—the pleasure of recognizing the combination of contentment, happiness, etc.

Miss Edith Ennis, of the College of Business Administration, University of Iowa, presented "Techniques for a Receptionist." Again *communication* was the key word. Speaking and writing are the expressive communication techniques; the receptive communication techniques are reading and listening. Yes, LISTENING! Confusion arises from failure to listen. This doesn't mean not hearing; it means *not listening*. How good a listener are you?

Here are Miss Ennis's seven basic rules for receptive listening:

1. Get ready to listen; give your undivided attention. Look at the person who is speaking! Don't try to do other things and merely pretend that your attention is upon what is being said.
2. Accept your share of responsibility. "I wasn't listening to the instructions" isn't a very good excuse for an error.
3. Listen with understanding. Don't jump to conclusions. If you are giving directions, make sure they are clear.
4. Listen with an open mind. Be *aware* of the neurotic patient, but never let your personal feelings and prejudices come to the fore. We are never to pass judgment under any circumstances.
5. Listen actively. Listening is work. There are times when all of your powers of concentration must be brought to bear. Write down the ideas and facts that you have just heard, so as to make sure of the accuracy of your recollection.
6. Listen with empathy. This is most important in a doctor's office. Fear, anxiety, worry and even hostility are apparent in the people whom we meet as patients day after day.
7. Practice listening.

These are some challenging ideas to live by! Next month phone techniques, enunciation and pronunciation will be discussed.

On the Sunday afternoon program, Mr. Earl E. Carlson, Jr., head of the Physician Service Department at Iowa Blue Shield, answered myriad questions pertaining to Medicare, Title XIX, CHAMPUS and Blue Cross-Blue Shield.

Miss Hansen closed the seminar with the Medical Assistant's Prayer, and the homeward trek began.

—Jeanne D. Green

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Contraindications: Porphyria or sensitivity to barbiturates.

Precautions: Exercise caution in moderate to severe hepatic disease. Elderly or debilitated patients may react with marked excitement or depression.

Adverse Reactions: Drowsiness at daytime sedative dose levels, skin rashes, "hangover" and systemic disturbances are seldom seen.

Warning: May be habit forming.

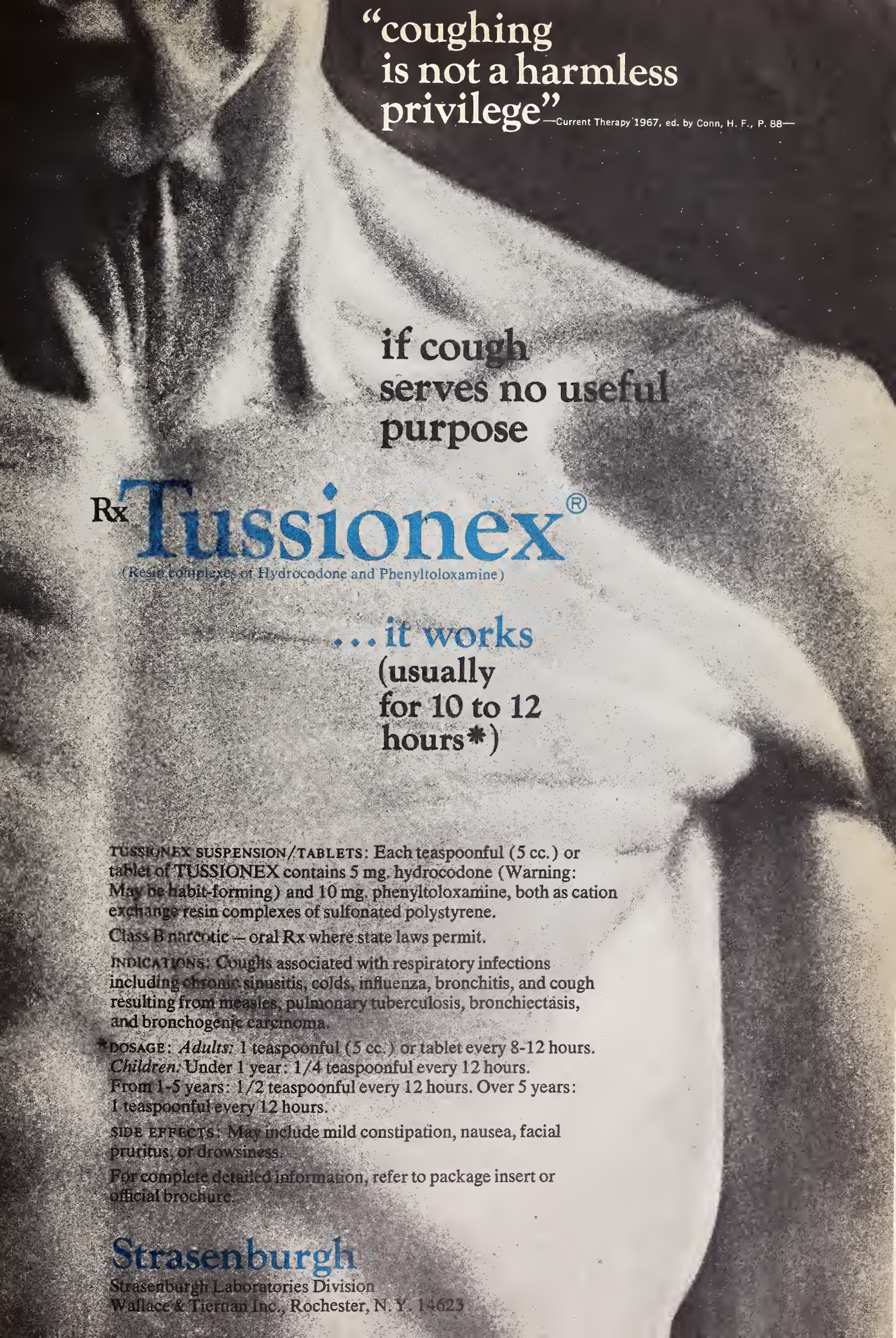
Usual Adult Dosage: As a daytime sedative, 15 mg. (¼ gr.) to 30 mg. (½ gr.) t.i.d. or q.i.d.

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INDICATIONS: Coughs associated with respiratory infections including chronic sinusitis, colds, influenza, bronchitis, and cough resulting from measles, pulmonary tuberculosis, bronchiectasis, and bronchogenic carcinoma.

*DOSAGE: *Adults:* 1 teaspoonful (5 cc.) or tablet every 8-12 hours. *Children:* Under 1 year: 1/4 teaspoonful every 12 hours. From 1-5 years: 1/2 teaspoonful every 12 hours. Over 5 years: 1 teaspoonful every 12 hours.

SIDE EFFECTS: May include mild constipation, nausea, facial pruritus, or drowsiness.

For complete detailed information, refer to package insert or official brochure.

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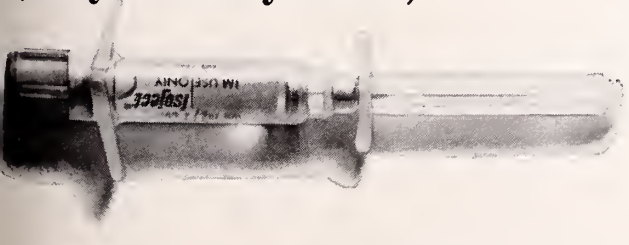
Terramycin®
oxytetracycline)

Fire victim. Examination reveals second degree burn of lower leg. To combat shock, restore circulatory volume and replace protein loss, plasma is administered. Local pressure dressing applied. Limb elevated to limit the flow of lymph. About 36 hours after admission the patient develops an elevated temperature and complains of pain at the site of the lesion. Dressing removed. A suppurating slough area has developed over part of the burn. A swab specimen is taken for culture and the slough area is debrided. Antibacterial treatment is begun with Terramycin I.M. Days later, recovery is progressing, and the laboratory report shows a mixed infection with a predominance of susceptible coliform bacteria, confirming the therapeutic choice. Terramycin therapy is continued until all signs of infection disappear.

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Contraindicated: In individuals hypersensitive to any of the components of this drug.

Warnings: If renal impairment exists, even usual doses may lead to excessive systemic accumulation and possible liver toxicity. In such patients, lower than usual doses are indicated and for prolonged therapy oxytetracycline serum level determinations may be advisable.

Terramycin may form a stable calcium complex in any bone-forming tissue with no serious harmful effects reported thus far in humans.

Use of oxytetracycline during the last trimester of pregnancy, neonatal period and early childhood may cause discoloration of teeth. This effect occurs mostly during long-term use of the drug, but it has also been observed in usual short-treatment courses.

During treatment with tetracyclines, individuals susceptible to photodynamic reactions should avoid direct sunlight. Discontinue therapy at first evidence of skin discomfort.

Note: With oxytetracycline, phototoxicity is not believed to occur and photoallergy is very rare.

Precautions: Use of broad-spectrum antibiotics occasionally may result in overgrowth of nonsusceptible organisms. Where such infections occur, discontinue oxytetracycline and institute specific therapy.

As with all intramuscular preparations, Terramycin Intramuscular Solution should be injected well within the body of a relatively large muscle. *Adults:* The preferred sites are the upper outer quadrant of the buttock (i.e., gluteus maximus), or the mid-lateral thigh. *Children:* It is recommended that intramuscular injections be given preferably in the mid-lateral muscles of the thigh. In infants and small children the periphery of the upper outer quadrant of the gluteal region should be used only when necessary, such as in burn patients, in order to minimize the possibility of damage to the sciatic nerve.

The deltoid area should be used only if well developed such as in certain adults and older children, and then only with caution to avoid radial nerve injury. Intramuscular injections should not be made into the lower and mid-thirds of the upper arm. As with all intramuscular injections, aspiration is necessary to help avoid inadvertent injection into a blood vessel.

Increased intracranial pressure with bulging fontanelles has been observed occasionally in infants receiving therapeutic doses of the drug, but such signs and symptoms have disappeared rapidly on cessation of treatment with no sequelae.

Adverse Reactions: Subcutaneous and fat-layer injection may produce mild pain and induration which may be relieved by an ice pack. Very mild gastrointestinal disturbances, not requiring discontinuance of the drug, may occur occasionally. Allergic reactions, including anaphylaxis, rarely have been observed.

Dosage: *Adult:* The optimal dosage varies, depending on the type and severity of infection. Unless otherwise specified, a dose of 100 mg. every 8 to 12 hours, or a single daily dose of 250 mg. should be adequate for the treatment of most mild or moderately severe infections. In severe infections, 100 mg. every 6 to 8 hours, or 250 mg. every 12 hours may be necessary.

Serum levels obtained by the recommended dosages are comparable to those provided by the oral dosage of 1 to 2 Gm. daily in adults. Antibiotic therapy should be continued for at least 24 to 48 hours after all symptoms and fever have subsided.

In certain diseases specific courses of therapy may be recommended as a general guide. In primary and secondary syphilis for example, the daily administration of 2 Gm. oxytetracycline, orally, in divided doses for two weeks has given good results. In cases of gonococcal infection two intramuscular injections of 250 mg. each, or one intramuscular injection of 250 mg. combined with one gram given orally as a single dose, will usually suffice, but repetition of this therapy will be required in an occasional case.

In the treatment of hemolytic streptococcal infections, therapy should continue for at least 10 days to prevent development of rheumatic fever or glomerulonephritis.

In the treatment of staphylococcal infections indicated surgical procedures should be carried out in all cases.

Pediatric: A dosage of 3 mg./lb./day in two doses has been found satisfactory in the treatment of most mild to moderately severe infections. For more severe infections, higher dosages may be indicated and should be adjusted accordingly.

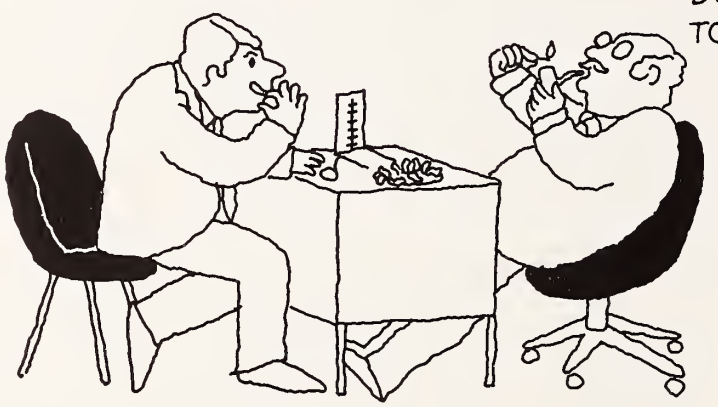
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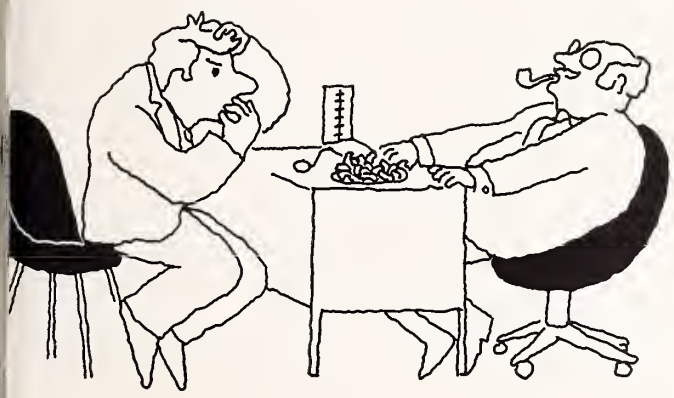


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and allay anxiety in hypertension

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Woman's Auxiliary News

From the President's Desk—

Attendance at the Annual meeting of the Woman's Auxiliary to the American Medical Association was a most rewarding and stimulating experience. One could only be proud and grateful for the opportunity to associate even for a brief time with such a fine group of women as the officers, delegates and members present there.

We arrived in New York City in the early afternoon of July 13, the opening day of the meeting, and checked in at the Waldorf Astoria, the Auxiliary headquarters hotel. The first activity was Auxiliary registration. The ultimate total, by the convention's end on July 16, was 919 members. That evening a reception honoring Mrs. John M. Chenault of Decatur, Alabama, National Auxiliary president, was held in the Empire Room of the Waldorf. This was a very impressive occasion.

Monday morning the Auxiliary House of Delegates convened, with Mrs. Chenault in the chair. Mrs. Chenault filled the unexpired term of her predecessor, Mrs. C. C. Long, of Ozark, Arkansas, who died suddenly on April 22, 1969. Mrs. Chenault will continue as president during her own term, the 1969-1970 year. Most of the morning session of the Auxiliary's House of Delegates on Monday, July 14 was taken up by reports of the officers and the nominating committee. An impressive and moving memorial service concluded that morning's session.

At luncheon that day, Dwight L. Wilbur, M.D., president of the American Medical Association, spoke very entertainingly and later quite seriously about the Auxiliary's programs and those of Mrs. C. C. Long, its late lamented president.

An important activity of Monday afternoon was the presentation of the American Medical Association Education Research Foundation awards by Milford O. Rouse, M.D., a past-president of the American Medical Association. The Auxiliary's record-breaking contribution to this fund was $428,875.77 during the 1968-1969 year. The Woman's Auxiliary to the California Medical Association received the Award of Merit for making the largest contribution to the program.

The remainder of the afternoon was taken up by reports presented by representatives of the various state Auxiliaries.

The morning session on Tuesday, July 15, was taken up by the AMA-ERF report, the report of the liaison to the Student-AMA Auxiliary, an AMPAC report to the Auxiliary, a membership-awards presentation, the presentation of the Emergency Health Service Award to the Woman's Auxiliary to the Honolulu County Medical Society for its outstanding achievements in alerting Hawaiian residents about various poisons, and the presentation of the 1969 Award of Honor of the National Safety Council Women's Conference to the Oklahoma County Auxiliary for its "Teen Sitter Workshop," a program which trained more than 2,000 teenagers. The remainder of the morning was devoted to a talk by James R. Adams, Ph.D., whose topic was "Bending Elbows and Bending Twigs."

Concomitantly, throughout the day, a "Show and Tell" presentation of exhibits developed by state and county Auxiliaries was on display.

The luncheon on Tuesday was highlighted by a speech by Ann Landers, a nationally syndicated columnist. A very nice fashion show by Helen Norell preceded Miss Landers' speech.

The morning session on Wednesday, July 16, was exclusively a business meeting. The 1970 nominating committee was announced in the teller's report, the 1969-1970 budget was presented, bylaws amendments were presented, and the other items on the program were resolutions, election and installation of officers and directors, presentation of the president's pin, and the inaugural address by Mrs. Chenault.

That afternoon there were the following events: a post-convention conference for presidents and presidents-elect, a résumé of the happenings at the concurrent American Medical Association convention by Ernest B. Howard, M.D., executive vice-president of the American Medical Association, and a film "Escape to Nowhere," a real-life story of drug use. Adjournment followed.

A resolution against violence in television and motion pictures, suggested by the Woman's Auxiliary to the Medical Society of the State of New York in memory of Mrs. C. C. Long, was accepted by the House of Delegates. The resolution stated:

> "That the Woman's Auxiliary to the American Medical Association go on record with a formal resolution in support of the already existing

program of the National Auxiliary to curtail provocative violence on television and in motion pictures as recommended by our late National President, Mrs. C. C. Long, and that constituent Auxiliaries be encouraged to continue and strengthen campaigns for better programming in the television and motion picture industries."

Some of the key phrases in Mrs. Chenault's inaugural address were:

"Theme for the year 'Active Leadership in Community Health with the Accent on Youth.'"

"Work closely with our husbands and our sponsoring medical societies to raise the level of health care for all people."

"Let us study the health resources of the area in which we live; let us evaluate the human resources with which we have to work. Then let us direct our energy toward achieving better health conditions, using our imagination in developing projects and programs which will meet the health needs of our communities. Where there is ignorance, let us encourage education; where there is misunderstanding, let us provide information; where there is poverty, let us foster opportunity."

As your representative at the 1968-1969 National Meeting, I was thrilled with the opportunity to hear so many of our leaders in the American Medical Association and Auxiliary, and I am more than ever firmly convinced that our destiny as an Auxiliary and as members of the medical team is in good hands. However I am more and more convinced that the workers at the grass roots must continue to work intelligently, zealously and with good will to further our goal of good medical care for all of our citizenry.

Extracurricular Activities

New York is a city of superlatives, where everything is the biggest, tallest, longest, gayest, gaudiest, and fastest. Not only the largest city in the nation, New York is the financial, publishing, fashion, entertainment, and industrial capital of the country, and as the home of the United Nations it is the political capital of the world.

New York offers something for everyone, whether it be museums, parks, tall buildings, bright lights, exhibits, shops or recreation. You can travel on the subway for ten cents from one end of the city to the other, or if your checkbook can stand the strain, you can hire a chauffered limousine and travel in style. We took the subway. Who says you can't buy anything for a nickel any more? We took a ride on the Staten Island Ferry for just that amount, had a breathtaking five-mile view of the New York Harbor and the skyscrapers plus a great look at the Statue of Liberty.

We took a walking tour and gazed at the Empire State Building and the United Nations, pressed our noses against the show windows of shops on 5th Avenue, and gazed with small-town wonder at the "Great White Way." A gourmets' delight, this city—food of every nation. It too runs the gamut from the Automat to the Tower Suite on the 48th floor of the Time-Life building. There you'll have your personal maid, your personal butler, and course after course rolled up to your table. If you are hungry, go to Mamma Leone's. The motto there is "Where strong appetites are met and conquered."

New York is a great place to hold a convention! My one regret was that we didn't have enough time to see even a part of what we would have liked to see, because we did attend the meetings as scheduled.

—"BUNNY" WICKS

Report on Vice President Agnew's Speech at the AMA Convention

Coming as it did on the heels of the Knowles-Finch affair in Washington, Vice President Agnew's speech was even more of a highlight on the program than it might normally have been. What, many wondered, would the "word from Washington" turn out to be?

Appearing before an audience carefully screened for security purposes, the Vice President looked tanned, very fit and quite young. He proved to be even more of a diplomat than his most ardent supporters had thought him. After several light quips in his opening remarks such as referring to Senator Dirksen as "Secretary of H.E.W., *ex officio*," and stating that many medical schools planned to add a new course this year—dramatics —the Vice President chose to speak on the wholly non-controversial, non-provocative, and basically non-medical topic of pollution.

Before plunging into his main theme, Mr. Agnew did make several statements in defense of the AMA. He said he was sorry about the recent unjustified condemnation of the American Medical Association. Few kinds words had been written, he went on, so he would speak a word now in "your defense." Mr. Agnew feels too many people "nit-pick" at the medical profession. The record of medicine speaks for itself. Doctors in or out of the AMA are betrayed when the achievements of medicine in this century are deprecated. "The nation is in some need of perspective," he declared, "for the medical profession has added more than 20 years to life expectancy and has eliminated many disabilities." These statements seemed to be sincerely made, and of course were well received by those gathered to hear him.

Mr. Agnew said, "Air and water pollution respect no political boundaries. The curse of modern society is its inability to alleviate the causes of a polluted environment." A new step forward is a council appointed by the President to study

environmental problems. Very firmly he stated, "What America must do, it can do. When Government must get tough, it can. Today's pollution of air and water is fast becoming intolerable, and we are threatened by an expensive burial in our own garbage. Only with a benign environment can we aspire to a more beautiful life."

—MILDRED LEINBACH (Mrs. S. P.)
Alternate Delegate

Mrs. James Bishop's Iowa Report to National Auxiliary, New York City

HOMEBOUND HANDCRAFT SALES

"Helping Others to Help Themselves." This has been the spur and goal of the Woman's Auxiliary to the Iowa Medical Society in sponsoring sales of articles made by homebound handicapped persons —those whose physical or mental disabilities prevent their leaving home for education or employment.

The Iowa Society for Crippled Children and Adults, Inc., has developed a craft training program to enable the handicapped to make saleable articles in their homes. The quality—sometimes rather poor at first—has greatly improved, and now the workmanship has been excellent. The eagerness of the handicapped to participate shows itself in the growth of the program from about 150 clients before 1964, to 400 now.

The clients themselves provide the materials and set the prices for their products, sometimes with the guidance of the Society. From gnarled and deformed hands, from crippled minds, come pieces of handiwork fashioned with care and pride —their creators comforted to know they are useful. Woven rugs, jewelry, leather items, ceramic pieces, and original art are only some of the items offered for sale.

The first sale sponsored by an Iowa county Auxiliary was held in 1948, and the next year the State Auxiliary adopted handicapped craft sales as a state project. Participation by county Auxiliaries has spread, and last year the sales brought in over $5,000.

Auxiliary members arrange, display and sell the products. All proceeds go to the clients. Sales can be held anywhere—wherever people gather. Some stores furnish suitable display and sales areas without charge.

The measure of the material success of the sales is the financial return to the clients. The greater intangible reward is the pride of creation and the ultimate satisfaction of no longer being useless. What is better to do than to help others help themselves?

Presidents' Reports: "Show and Tell"

Have you known or wondered about what happened to the county presidents' reports you are asked to send in March every year? Go to National Convention and you'll find out. They don't go into an office wastebasket or into a dusty file cabinet. From them, your state president chooses one to "show and tell" to representatives of Auxiliaries in the other 49 states. As for the "tell" part, each president was asked to concentrate on one project. Not all read the fine print, but there were strict timekeepers who didn't hesitate to wield the axe in the middle of sentences.

These reports were *the* program on the first afternoon. I'd like to comment here on the program content. It was my first National meeting and I was continually amazed at the simplicity and informal atmosphere of the proceedings. There were no tiresome, long-winded committee reports and the parliamentary procedure wasn't allowed to show. Necessary business was carried on with dignity, but with a pleasant informality that kept us alive and interested. It's fun to know what other Auxiliaries do and how they do it. You understand health problems in the whole country, and, at the same time, get ideas about your own back yard. The samplings from the four regions are indicative of what's happening.

Let's begin with the Western Area. California had spent the year on an organizational review to streamline and update its activities. It will take three or four years to see results, so watch California! Three states, Hawaii, Nevada and Washington, stressed drug abuse by students; Washington tied in drinking and accident prevention. Imagine, if you can, Hawaii's famous beaches invaded by "hippies." Alaska and Wyoming spent their two minutes telling us about their women's worry clinic and Worry-in Day.

Now follow me please, to the Eastern Region. Maryland's president told about a unique project. Translation teams adept in 50 languages were developed to assist doctors and patients. While most states stressed the National theme of "Accent on Youth," Massachusetts' emphasis was on the Mature Woman, and on Violence in the Mass Media—Esther Long's great concern this past year.

New York had done a survey on smoking in physicians' families; Guess who smoked the most —36 per cent of the women and just 25 per cent of the doctors. A smoking dummy, available for $250, was the star of their demonstration programs in schools.

Of course the highlight for us was Lenor's report. North Central Region was third—the first after a break at the halfway point. "Helping Others Help Themselves" was the theme she chose to tell and show, using the Homebound Handcraft sales by county Auxiliaries. The Coughlans had brought two boxes of homebound handcraft arti-

cles for the show, and the gals came home with $46.10 from sales. Lenor, Jeanne and I set up the exhibit Monday night and Lenor "baby sat" it on Tuesday morning.

Tuesday morning we waited for the television people to tape the interviews and take pictures of the exhibits. All 50 state presidents "told," but not very many chose to "show." The tape was run on the closed circuit TV that evening, but it didn't do Lenor or the handcraft items justice. Utah concentrated on problems of obese children and medical supplies to Viet Nam and to leper colonies. Our neighbors in Kansas had worked on International Health, supplying everything from bandages to nylon dolls.

The Southern Region had two strikes against it. Its turn came last, and the gals were teased about their characteristically slow delivery. But they "showed" that they were just as concerned and energetic as the rest of us, and had no difficulty in utilizing their precious two minutes. Mississippi had worked hard on a "Stop Measles" campaign, holding immunization clinics on Sundays. Oklahoma stressed the use of the packaged programs and had held three gatherings for MAL's. This Auxiliary received an award from the National Safety Council for its "Teen Sitter Workshop" program which trained more than 2,000 teenagers. Texas conducted regional workshops for high school students in health careers recruitment.

There were a wide variety of projects, but all had analyzed their community and state problems, and had done something about them. The National Auxiliary had prepared helpful material for programs and activities on many vital health problems.

Study your local needs, choose what you want to do, and let us know about your efforts. We'd like a chance to help if necessary, and to tell *your* story.

Thanks so much for giving me this opportunity. It was an exciting experience and a challenge to make Auxiliary membership and participation more meaningful.

—MARION PREWITT
President Elect

AMA-ERF Fund Raising Projects

Note Paper

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Around the Hawkeye State

Dickinson County

The members of the Dickinson County Medical Auxiliary were hostesses at a continental breakfast at the home of Mrs. Charles Graham, in Spirit Lake. Members-at-large from Districts II, III and IV and officers of organized county Auxiliaries were invited to come and meet the State Auxiliary Board members. Delicious fresh fruit and rolls were beautifully served in this most enjoyable lake-front setting.

Polk County

The Woman's Auxiliary to the Polk County Medical Society has pledged a total of $1,855 for the construction of an elevator at the YWCA building. This elevator has been badly needed by the handicapped who are unable to climb stairs. A plaque will be placed near the elevator with the name of the donor inscribed.

Graduates of the Des Moines School of Practical Nursing and the faculty were honored at a reception, Monday, August 11, at Hoover High School. Approximately 79 nurses were graduated. Arrangements for the reception were made by the Woman's Auxiliary to the Polk County Medical Society, with Mrs. James W. Ryan, Jr., and Mrs. Jackson D. Ver Steeg serving as co-chairmen.

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

President—Mrs. D. W. Coughlan, 1435 Park Avenue, Des Moines 50315
President-Elect—Mrs. L. H. Prewitt, 33 Birchwood Hills, Ottumwa 52501
Recording Secretary—Mrs. O. A. Elliott, 4010 Welker Avenue, Des Moines 50312
Treasurer—Mrs. J. F. Veverka, Box 324, Prairie City 50228
Editor of THE NEWS—Mrs. D. A. Mater, 302 S. 4th Street, Knoxville 50138
Assistant Editor—Mrs. R. J. Foley, 1025-16th Street, West Des Moines 50265

WHAT'S SO WEAK ABOUT THE WEAKER SEX?

OFTEN... HER LOWER G. I. TRACT



Psycho-abdominal Distress: Frequently Female

Women aged 15 to 45 appear to be more prone than men to bloating, cramping pain of stress-related intestinal disturbances such as irritable or spastic colon.[1,2]

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In the experience of many physicians, women are more likely to reappear time after time with repeated complaints of lower G.I. distress.

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Often needed is therapy adequate to control both the somatic and the emotional components of psycho-abdominal complaints.

Definitive Dual Therapy

'Milpath' contains a proven synthetic anticholinergic useful for relieving hypermotility, spasm, and hypersecretion of the gastrointestinal tract.

In addition, 'Milpath' provides a time-tested tranquilizer for mild but effective anti-anxiety action.

With Flexible Dosage

- 'Milpath'-400 (meprobamate 400 mg. + tridihexethyl chloride 25 mg.) Usual adult dose: 1 tablet *t.i.d.* and 2 at bedtime.
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One 'Milpath'-400 tablet, three times a day at mealtimes, and two at bedtime. For greater anticholinergic effect, two 'Milpath'-200 tablets, three times a day at mealtimes and two at bedtime. Doses of meprobamate above 2400 mg. daily not recommended.

Indications

Useful in organic and functional disorders with hypersecretion and hypermotility of G.I. tract, especially when accompanied by anxiety, neurosis, or tension states. Should be used as an adjunct to all other therapeutic measures.

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Tridihexethyl chloride: Urinary bladder-neck obstructions, e.g., prostatic obstruction due to hypertrophy; pyloric obstructions because of reduced motility and tonus: organic cardiospasm (megaesophagus); glaucoma; possibly in stenosing gastric or duodenal ulcers with significant gastric retention.

Meprobamate: Previous allergic or idiosyncratic reactions to meprobamate.

Precautions

Tridihexethyl chloride: Use cautiously in elderly males (possible prostatic hypertrophy).

Meprobamate: Carefully supervise dose and amounts prescribed. Consider possible dependence or habituation (reported occasionally after excessive use), particularly in severe psychoneurotics, alcoholics, ex-addicts. Withdraw gradually (one or two weeks) after excessive dosage for weeks or months to avoid recurrence of pre-existing symptoms (e.g., anxiety, anorexia, insomnia) or withdrawal reactions (e.g., vomiting, ataxia, tremors, muscle twitching; rarely, epileptiform seizures, more likely in those with CNS damage or latent convulsive disorders). If drowsiness or visual disturbance occurs, reduce dose and advise against activity requiring alertness (driving, machinery operation). Effects of excess alcohol may be increased. Grand mal seizures possible in persons with both petit and grand mal. Prescribe cautiously in small amounts to patients with suicidal tendencies. Prescribe with caution to patients with known sensitivity to compounds of similar chemical structure, e.g., carisoprodol.

Side Effects

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Tridihexethyl chloride: Severe effects rare on recommended dosage. Anticholinergic effects: dry mouth (fairly frequent at oral doses of 100 mg.), constipation or "bloated" feeling. Possible: tachycardia, dilation of pupils, increased ocular tension, weakness, nausea, vomiting, headache, drowsiness, urinary hesitancy or retention, dizziness.

Meprobamate: Drowsiness, sometimes with ataxia, usually controlled by decreasing dosage, occasionally with aid of central stimulants (e.g., amphetamine). Rarely, allergic or idiosyncratic reactions (usually after one to four doses); in mild form: itchy, urticarial or erythematous, maculopapular rash, generalized or confined to groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever, transient leukopenia, and one fatal bullous dermatitis (after meprobamate and prednisolone) reported. More severe, very rare hypersensitivity: fever, chills, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (one fatal), anuria, anaphylaxis, stomatitis and proctitis. Treat symptomatically (e.g., epinephrine, antihistamines, possibly hydrocortisone); stop and do not restart the drug. Isolated agranulocytosis, thrombocytopenic purpura, one fatal aplastic anemia reported, but only in presence of known toxic drugs, porphyric symptoms reported but relationship not established. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation reported by one observer. Fixed drug eruption with meprobamate and cross reaction to carisoprodol reported.

Suicidal attempts may produce drowsiness, lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse, and death. Excessive dosage has led rapidly to sleep, then reduction of vital signs to basal levels. Empty stomach, and if respiration becomes very shallow and slow, cautiously give CNS stimulants (e.g., caffeine, pentylenetetrazol, amphetamine); also pressor amines if indicated.

Supplied

In two strengths:

'Milpath'-400: Yellow, scored tablets.

'Milpath'-200: Yellow, coated tablets.

Before prescribing, consult package circular.

References

1. Harrison, T. R., et al.: Principles of Internal Medicine, Fifth Edition, New York, The Blakiston Division, McGraw-Hill Book Company, 1966, p. 1019. 2. Bockus, H. L.: Gastroenterology, Second Edition, Philadelphia & London, W. B. Saunders Company, 1964, Vol. II, p. 729 et seq.

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Personals



Dr. James A. Frahm, a medical graduate of Loma Linda University, a Seventh Day Adventist school in southern California, who just finished his internship at Iowa Lutheran Hospital, Des Moines, has started general practice with **Drs. Arnold T. Nielsen, Lawrence R. Gray** and **Rodney R. Carlson,** in Ankeny.

Dr. Russell H. Mahoney, a medical graduate of the U. of I. who started a residency in pathology at Iowa Methodist Hospital, Des Moines, a year ago, has interrupted that work because of an impending call into military service. In the meantime—perhaps for two or three months—he is helping to staff the Iowa Methodist emergency room.

Dr. Ludomira Furman, who received her basic medical education at the University of Warsaw, in Poland, and has been on the house staff at Iowa Methodist Hospital, Des Moines, for the past year, moved to the ISU Student Health Service, in Ames, on May 1.

At a noon meeting on July 8, **Dr. Noble Irving,** a Des Moines radiologist, spoke to the Des Moines Life, Accident and Health Claim Association about brain scanning and encephalography.

Dr. Paul From and **Dr. Charles Gutenkauf,** Des Moines internists, spoke at the annual meeting of the Iowa Regional Medical Program, in Des Moines on June 27. Dr. From discussed the comprehensive stroke management project at Mercy Hospital, Des Moines, and Dr. Gutenkauf reported on the intensive coronary care unit training for nurses which is a joint project of the Des Moines hospitals.

Dr. Yechiel Prusak, a 1963 graduate of the Hebrew University-Hadassah Medical School, in Jerusalem, who interned at Iowa Lutheran Hospital, Des Moines, and since then served an internal medicine residency at Montefiore Hospital, New York City, and served briefly as an instructor at the Albert Einstein College of Medicine, New York City, has joined **Drs. Louis Goldberg** and **Abraham Wolf** in practice at 4001 Ingersoll Avenue, Des Moines.

Dr. Keith Swanson, a 1958 graduate of the U. of I. College of Medicine who engaged in general practice in Hull and in Sheldon, and recently completed a residency in general surgery in Des Moines, is to begin the practice of his specialty in Atlantic.

Drs. L. H. Schafer and **G. W. Marmé** were honored July 23 by the board and medical staff of the DeWitt Community Hospital at a party held in the Springbrook Country Club. Dr. Schafer is closing his office after 20 years of practice there, but will remain in town and will be available for consultations. Dr. Marmé is moving his practice to Ottawa, Ontario. **Dr. Martin S. Esders,** of DeWitt, showed color slides that he had taken during a recent European trip.

Dr. J. A. Broman, of Maquoketa, was one of the speakers at the first of a series of six conferences on nursing care of stroke patients, held at the Jackson County Hospital there, on July 17. The succeeding meetings will be spread over three months. **Mrs. Meridean Maas,** of the U. of I. College of Nursing, is conducting the program.

Mr. Gordon Gammack devoted his column in the DES MOINES TRIBUNE for July 29 to a physician friend who had died two days earlier. He said: "When Des Moines psychiatrist **Dr. Howard V. Turner** discovered, after exploratory surgery, that he was terminally ill with cancer, his first thoughts included his patients. He told an associate that while there was no way of knowing how 'angry' the deadly cells were, treatment might enable him

to live several more months and he hoped he would have enough stamina for a farewell office consultation with each patient. That was six weeks ago. He had barely survived a severe heart attack prior to the discovery of cancer, and never regained the strength to return to his office. A week or so ago, he dictated letters to his patients, explaining the imminent termination of his life and practice. He died early Sunday morning.

"Dr. Turner was one of my closest friends. We played golf together twice a week. I met him nearly 20 years ago, when I interviewed him about his views as a psychiatrist on a variety of topics. One of the questions I had listed in advance was whether red-haired people were especially hot-tempered. Then on meeting him I saw that his hair was distinctly red. I asked the question anyway, and he said, no, there was no real relation between hair color and disposition. 'Perhaps some redheads use the theory as an excuse,' he said.

"Frequently, when I attributed an opinion to 'a Des Moines psychiatrist,' Dr. Turner was the one —a fact well known in medical circles and among our mutual friends. Once at a dinner party, another psychiatrist told an amusing anecdote and I asked his permission to use it without identifying him. 'Sure,' he replied, 'I don't care. Everyone will think it's Turner's anyway.'

". . . Occasionally, when Dr. Turner was concentrating on a serious professional problem, he became absent-minded about minor matters. There was the time, for instance, when a large and beautiful chrysanthemum plant, a gift, was delivered at his office. To his secretary, . . . he said: 'I'll be damned if I'm going to walk down Grand Avenue carrying this. I'll go get my car . . . and you bring the plant down to me when I've had time to get back.' [His secretary] stood in front of the Des Moines Building for a seeming eternity and finally phoned Dr. Turner's residence. Yes, he'd driven straight home, forgetting entirely about the chrysanthemum plant."

Dr. Russell R. Hansen, of Storm Lake, has been made a trustee of Buena Vista College, a Presbyterian school which is located there. He took his first two years of college work there, in 1925-1927, before going to Iowa City for his junior and senior years and his medical training.

Dr. G. C. Blome, a surgeon, and **Dr. D. D. Emerson,** a general practitioner are two of the 15 members of the Ottumwa Hospital's board of trustees.

This summer is the second season for Camp Hertko Hollow, for diabetic children, located near Madrid, Iowa. It is named for its founder, **Dr. Edward J. Hertko,** a Des Moines internist. Its sponsors are the State Department of Health, the Iowa Dietetic Association and Iowa Diabetes Association, Inc.

Dr. J. G. Grant, a medical graduate of the University of Manitoba who has been on the staff of the Iowa State University student health service for 39 years, has joined the general practice section of the McFarland Clinic, in Ames.

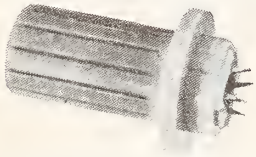
In a "Letter to the Editor" published in the July 17 edition of the DES MOINES REGISTER, **Dr. James F. Bishop,** a Davenport surgeon, explained why non-physicians are likely to think medical fees are excessive when indeed they are not. "If I were the 'layman' on a committee reviewing the prices of automobiles, the expense of building or remodeling a home, or even the cost of newspaper advertising, I am sure I would consider them all too high. . . .

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review committees to consider disputed Medicaid claims. It has given its word that it will exert all its effort and influence to make the committees effective."

Burglaries in eight offices of physicians at 1420-1428 Woodland Avenue, in the Doctors' Park development adjoining Iowa Methodist Hospital, Des Moines, during the night of July 31-August 1, resulted in thefts totaling $115. No drugs were stolen. The doctors whose premises were entered are **Norman Custer, M.D., Hanley Jenkins, M.D., Charles Burr, M.D., Harlan Rosenberg, M.D., George Caudill, M.D., Meredith Saunders, M.D., Wendell Downing, M.D.**, and **Dennis Kelly, Jr., M.D.**

Dr. Steven Kruse has been discharged from the Army after serving a year in Viet Nam. He and his family are back in Slater, and he has resumed his practice with **Dr. K. E. Check.**

Dr. Donovan Ward, of Dubuque, former president of the American Medical Association, and **Dr. Lawrence J. Rossi,** founder of the Hopedale Foundation at Hopedale, Illinois, were featured speakers at a banquet held in Dyersville on July 26, marking the dedication of the Dyersville Community Hospital.

Dr. Phillip H. Tenney, of Independence, has been named a director of the Buchanan County Red Cross chapter.

Dr. Ernest J. Sotrop, who has been appointed associate pathologist at St. Luke's Medical Center in Sioux City, recently completed a four-year residency in pathology at Huntington Memorial Hospital, in Pasadena. The earlier parts of his residency were spent at the Veterans Administration Hospital at Hines, Illinois, and at St. Luke's Episcopal Hospital in Houston. Dr. Sotrop was graduated from the University of Illinois and received his medical degree from the college of medicine there in 1951. He maintained a general practice in Sandwich, Illinois, for 12 years before beginning his residency. He is a member of the American Society of Clinical Pathologists, the American College of Pathologists and the American Academy of General Practice.

The resignation of **Dr. S. P. Leinbach,** of Belmond, from the Iowa Regional Advisory Group as of July 1 has been reluctantly accepted, according to **Dr. George Hegstrom,** of Ames, the group's chairman. Dr. Leinbach had served on the governing body of the Iowa Regional Medical Program for two years and also was a member of its executive committee. **Dr. John Sunderbruch,** of Davenport, president-elect of the IMS, has been nominated the Society's primary representative on the Advisory Group, to succeed Dr. Leinbach.

Dr. David D. Aldrich has joined **Drs. Fred Dick, Jr., Gilbert R. Clark** and **James D. Collins** at Black Hawk Medical Laboratories, in Waterloo. Dr. Aldrich graduated from the Indiana University College of Medicine in 1963 and completed his internship and a residency in pathology at the medical center there. Before moving to Waterloo, Dr. Aldrich served in the Air Force.

Dr. Leo Sedlacek, of Cedar Rapids, president of the Iowa Foundation on Alcoholism, spoke at a joint dinner meeting of the Foundation and the Iowa State Commission on Alcoholism, held at Hotel Roosevelt in Cedar Rapids on Wednesday, July 23. He told of the need that alcoholics have for financial and physical aid, and expressed hope that in the near future such foundations would grow to meet the anticipated national need.



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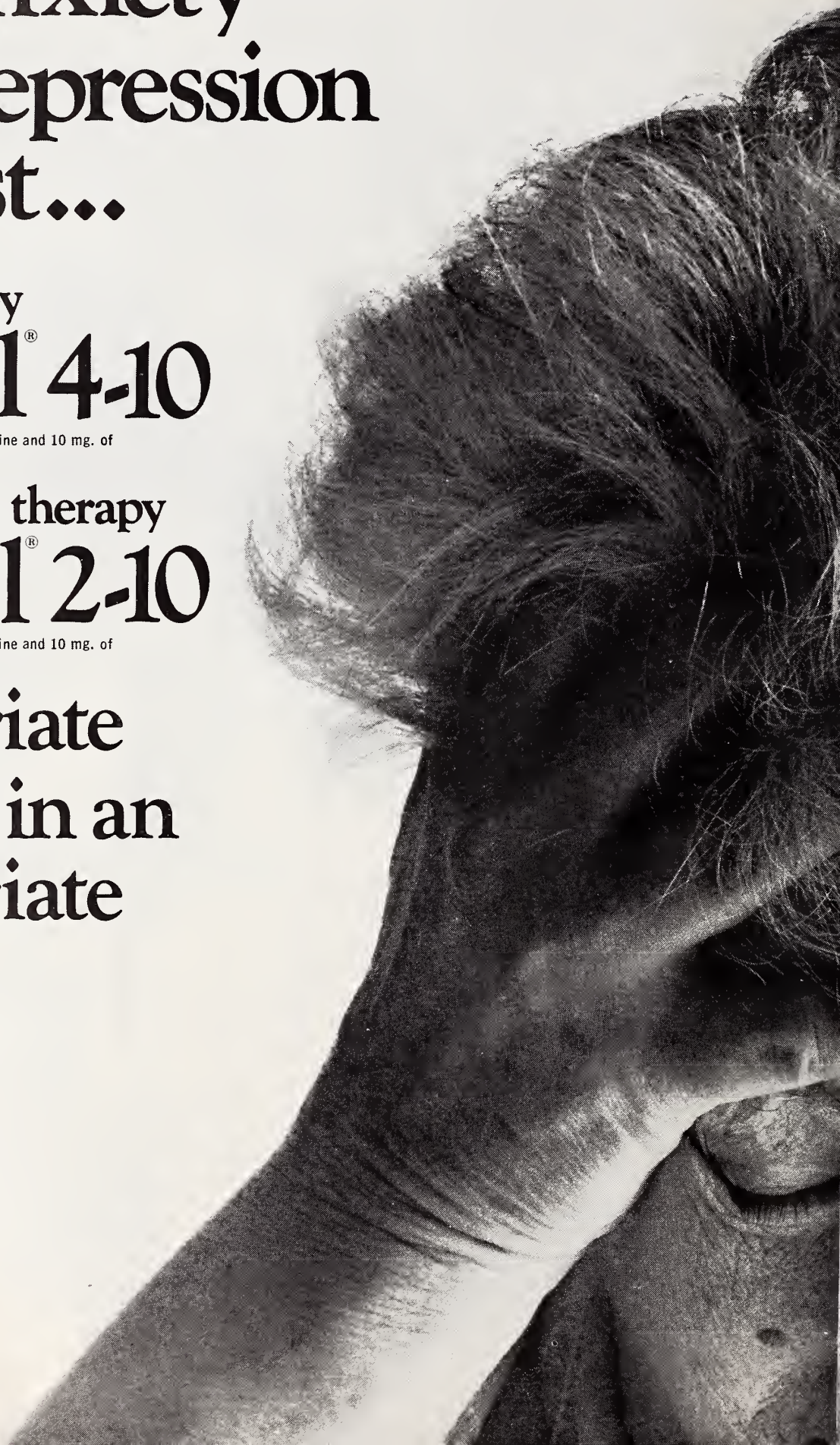
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Dr. Dennis Emanuel, of Ottumwa, was one of the guest speakers at a general assembly held on August 3-10 sponsored by the Sisters of the Humility of Mary at the Ottumwa Motherhouse in Ottumwa Heights. "Response to the Spirit" was the theme-title of the General Assembly.

Dr. John Walker, of Waterloo, was reelected president of the Black Hawk County Society for Crippled Children and Adults, Inc., at the organization's annual meeting held on July 16 at the Hotel President in Waterloo.

On July 10 the American Legion San Diego Post 207 presented **Dr. R. T. Paige,** of La Porte City, with the American Legion Citation for Meritorious Service, in recognition of his 50 years of medical practice in La Porte City and his equally long membership in the Legion.

Effective September 1, 1969, **Dr. J. T. May** will become superintendent of the Cherokee Mental Health Institute. The announcement was made by **Maurice A. Harmon,** Commissioner of the State Department of Social Services. Dr. May succeeds **Dr. Willard C. Brinegar** who is resigning as superintendent for health reasons. Dr. Brinegar has been superintendent for 21 years. Dr. May served as clinical director for in-patient services at Cherokee for almost nine years until 1967. After leaving Cherokee, he was director of the community mental health clinic at Auburn, Alabama for one year. Since then he has been Associate Professor of Psychiatry, State University of New York at Buffalo, and chief of the Psychiatry and Neurology Services, Veterans Administration Hospital.

On Saturday, July 12, **Dr. F. C. Perkins,** of Hedrick, was honored by the people of that community for 40 years of service. The tribute included a parade in the afternoon and a program Saturday evening with **Dr. W. W. Ireland,** of Ottumwa, serving as master of ceremonies.

On July 22, **Dr. James H. Haberman,** a Fort Dodge pathologist, addressed the Wright County Medical Society, in Clarion, on "Tips and Techniques in Doing Autopsies for Country Doctors." Physicians from surrounding counties—especially medical examiners—were invited to the meeting.

Dr. William Stanford, a lieutenant colonel in the Air Force, has been appointed chief of thoracic and cardiovascular surgery at the 1,100-bed Wilford Hall at Lackland AFB, Texas. He also is an assistant clinical professor at the San Antonio Medical School of the University of Texas, and a consultant in surgery at the San Antonio State Tuberculosis Hospital. Dr. Stanford took his M.D. at the U. of I. College of Medicine in 1956, and was a resident at the VA and U. of I. Hospitals in Iowa City from 1960 to 1966.

Dr. John Dickinson resigned his post as superintendent of the new Iowa Security Medical Facility in Oakdale, effective August 30. He was unwilling, he said, to continue following cuts in the budget for operating the new facility. At the time, he was hospitalized at University Hospitals after breaking a leg when a motorcycle he had been riding hit a hole in a Coralville parking lot. The institution was in the process of being moved to Oakdale from the Men's Reformatory at Anamosa.

Dr. Philip McFadden, a Marshalltown obstetrician and gynecologist, spoke on "Physical Aspects of Marriage—Sex, Health and Family Planning" at a meeting of newly-married and about-to-be-married couples there, on August 6. It was the third in a series of four programs.

The Burlington Kiwanis Club heard an address on physical examinations for cancer by **Dr. Robert D. Rowley,** early in August.

Dr. Earle Stine, Jr., who practices in Ida Grove, discussed and showed pictures of his stay in Honduras, during April, as a medical missionary, at the First Baptist Church of Elk Horn on August 17.

The Gilfillan Clinic, in Bloomfield, is adding to its 11-member staff. **Dr. Philip Caster,** a general practitioner, is a 1968 graduate of the University of Missouri College of Medicine. He and Mrs. Caster have two children. **Dr. Harry A. Mahannah,** a specialist in child and adolescent psychiatry, will join the group on September 1. His boyhood home was in Spirit Lake, Iowa, he took his M.D. at the U. of I. College of Medicine in 1962, interned in Wilmington, Delaware, and took his residency training at the Nebraska Psychiatric Institute, in Omaha. Most recently he has been director of the Child and Adolescent Unit of the state mental hospital in Lincoln, Nebraska. Dr. and Mrs. Mahannah have two sons.

Dr. Reginald R. Cooper, an associate professor of orthopedics at the U. of I., was a visiting professor at the University of Saskatchewan, in Sas-

katoon, on Monday and Tuesday, August 18 and 19. He lectured on "The Ultrastructure of Bone," and other topics, participated in ward rounds, operative clinics and informal sessions with faculty and students, and reviewed the operation of the orthopedic research laboratories there.

The August 13 issue of the ESTHERVILLE NEWS reported that **Dr. John L. Powers** will seek election to the board of directors of the Iowa Lakes Community College this fall.

Dr. A. J. Havlik, of Tama, vice-president of the Iowa Medical Society, gave the graduation address at the Mercy Hospital School of Nursing, in Marshalltown, on August 3.

Dr. Larry W. Goetz is one of the nominees for seats on the Creston school board.

Dr. Rodney Miller recently completed his tour of duty with the U.S. Army, and intends to resume his general practice in partnership with **Dr. David Youberg,** in Sac City, on September 1.

Six members of the faculty of the U. or I. College of Medicine participated in the Eleventh International Congress of Otorhinolaryngology, which was held in Mexico City from August 4 to 14. **Drs. James R. Leonard, Ward B. Litton** and **Brian F. McCabe** presented a report on "Radiotherapy and Surgery in the Management of Cancer of the Tongue and Floor of the Mouth." **Dr. Barry J. Anson** and Drs. Litton and McCabe lectured on the diagnosis and treatment of facial paralysis. **Dr. Scott N. Reger** discussed advances in Bekesy audiometry, and **Dr. Leslie Bernstein** had a share in presenting a program on fractures of the mandible.

Dr. William B. Bean, who has been head of internal medicine at the U. of I. College of Medicine, will become the first Sir William Osler professor of medicine there, according to a change of appointment approved by the State Board of Regents on August 16, to become effective in July, 1970. In April of this year Dr. Bean asked to be relieved of his administrative duties but to continue as a faculty member. **Sir William Osler** (1849-1919), a Canadian, was considered one of the greatest physicians of his time. It is appropriate for Dr. Bean to occupy a chair named for Osler because he has edited and published some of Osler's teachings and has lectured frequently regarding his life and work.

Dr. Elmer M. Smith, director of medical service in the State Department of Social Services and one of the Iowa Medical Society's AMA delegates, underwent gastrointestinal surgery at Iowa Methodist Hospital, Des Moines, on August 19. It is expected that his convalescence will be uneventful.

At its August 16 meeting in Ames, the State Board of Regents confirmed the appointments of an acting head of the Department of Surgery and a temporary dean of the College of Medicine at the University of Iowa. **Dr. Sidney E. Ziffren** was appointed to succeed **Dr. Robert T. Tidrick,** and **Dr. William O. Rieke,** head of the Department of Anatomy, was made the *pro tem* successor to **Dr. Robert C. Hardin.** Dr. Rieke took his M.D. at the University of Washington, Seattle, in 1958, and joined the U. of I. faculty in 1966. Dr. Hardin is to continue in the post of vice-president and dean for health affairs at the U. of I., but has relinquished the post of dean of the College of Medicine which he held since 1962.

DEATHS

Dr. Paul G. Ingham, 78, long-time Mapleton physician, died Saturday, July 19, at a Sioux City hospital. Dr. Ingham graduated from the University of Iowa College of Medicine in 1917. He came

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to Mapleton in 1919, and practiced medicine there until his death. In 1965, he was named the outstanding citizen of Mapleton.

Dr. A. H. Hendrickson, 81, a Sioux City physician and surgeon, died Sunday, July 20, at a Sioux City hospital after a two-month illness. Dr. Hendrickson attended Morningside College and graduated from Creighton University School of Medicine in 1917. He came to Sioux City in 1919 and practiced there until his illness.

Dr. George W. Gearhart, 96, oldest general practitioner of medicine in Linn County, died at the home of his daughter, Mrs. L. A. Johnson, in Springville, on Wednesday, July 23. Dr. Gearhart graduated from Lenox College in 1895. He then entered Rush Medical College, in Chicago, graduating in 1899. He was a Life Member of the Iowa Medical Society and of the Linn County Medical Society, and was an emeritus staff member of St. Luke's Hospital, Cedar Rapids.

Dr. Frank W. Fordyce, 77, a physician and surgeon in Des Moines for 40 years, died of cancer early on Sunday, July 27, at his home there, after a long illness. He was a 1916 graduate of the Northwestern University Medical School.

Dr. Howard V. Turner, 59, who had practiced psychiatry in Des Moines for 20 years, died at Iowa Methodist Hospital on July 27, after a 2½-month illness that involved both coronary disease and cancer of the pancreas. He received his training at the University of Iowa and at St. Louis University, but except for those years and his Army service from 1942 to 1947, he was a lifelong resident of Des Moines.

Dr. H. Lloyd Miller, 58, a lecturer in obstetrics and gynecology at the U. of I. College of Medicine, died at University Hospitals, Iowa City, on July 26, following a short illness. He practiced his specialty in Cedar Rapids for 25 years before joining the university faculty in July, 1968. He was a graduate of Rush Medical School at the University of Chicago.

Dr. Frank G. Ober, 66, an orthopedic surgeon who had practiced in Burlington since 1933, died at Burlington Hospital on August 7. He served as one of the Iowa Medical Society's alternate delegates to the AMA from 1950 through 1961; he was a member of various IMS committees over a span of 20 years, he was a member of the IMS Judicial Council for a three-year term; and he was president of the IMS in 1965-1966. Dr. Ober was a 1930 graduate of the U. of I. College of Medicine.

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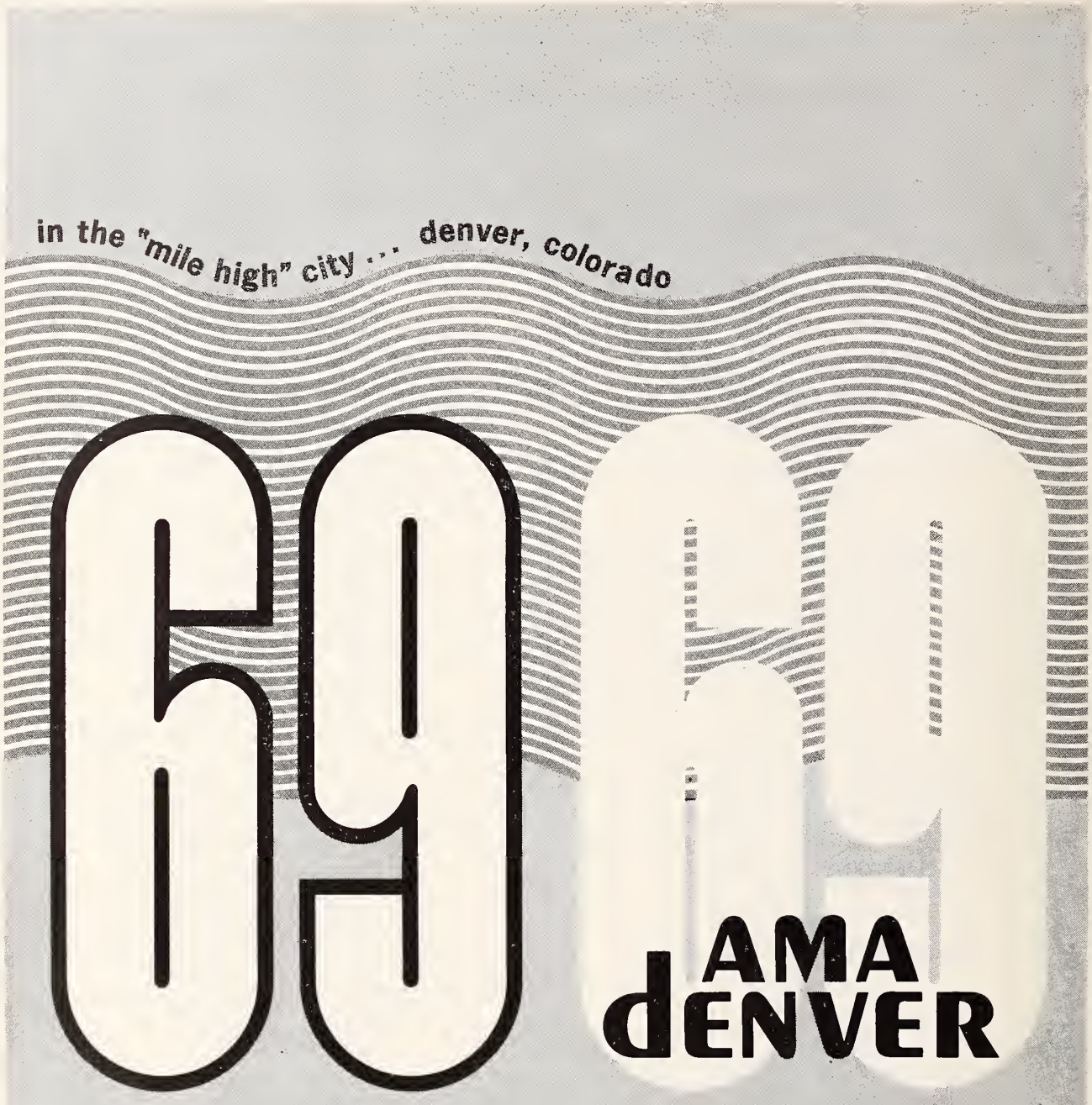
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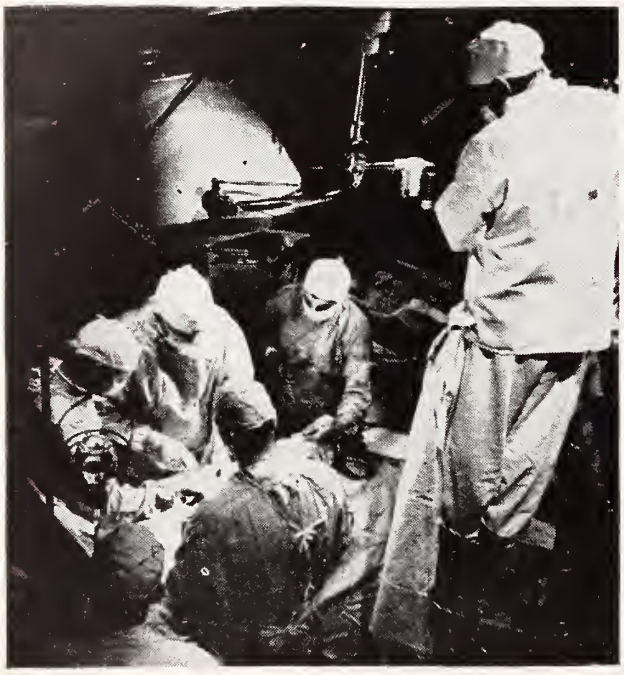
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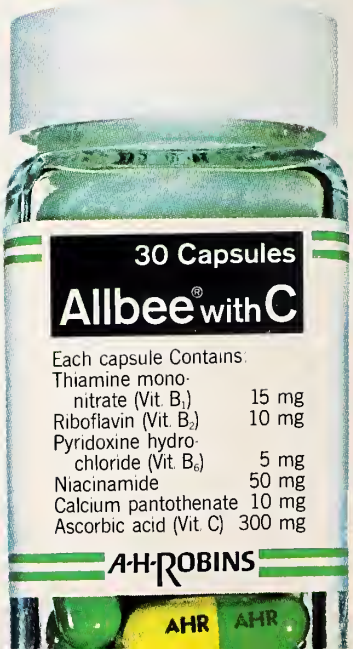
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- The Modified Rapid-Sequence Urogram as a Screening Test for Renovascular Hypertension—Steven H. Cornell, M.D.
- Macrodactyly—Virchel E. Wood, M.D.
- Granular Cell Myoblastoma in the Thyroid Gland—Bong Sik Han, M.D., James M. Caterine, M.D., and Roy W. Overton, M.D.

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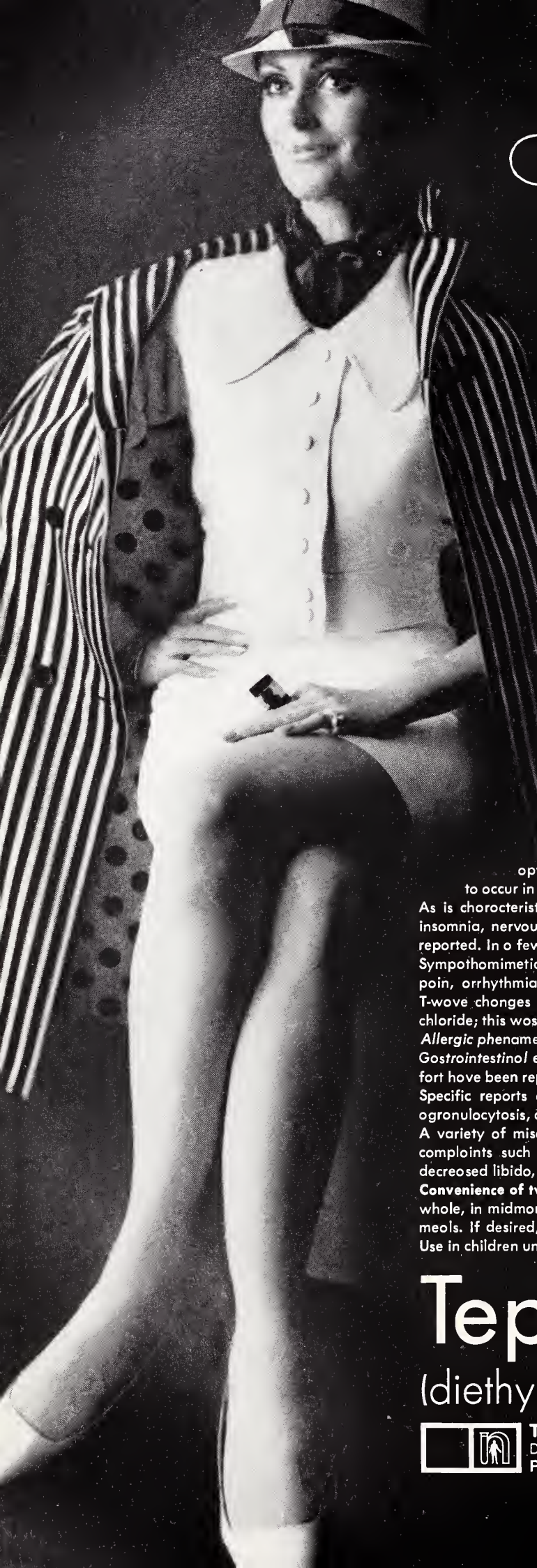
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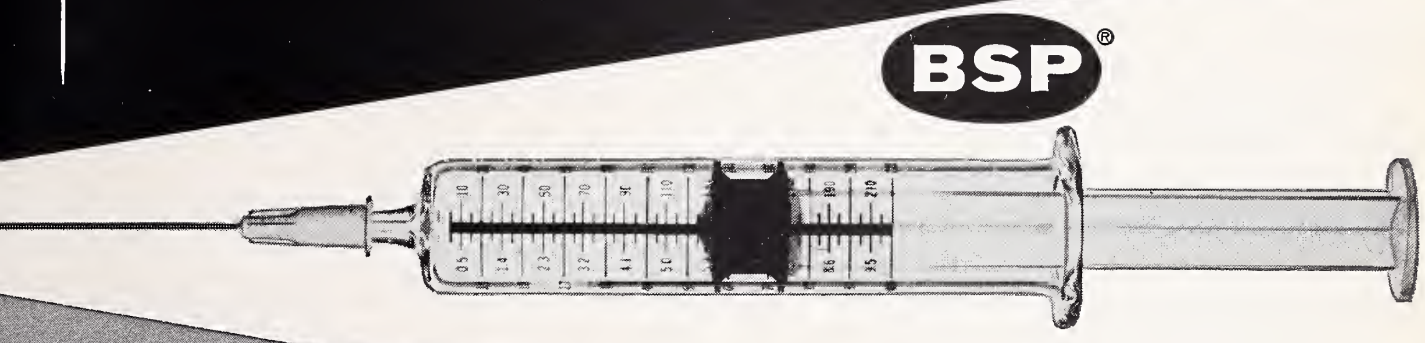
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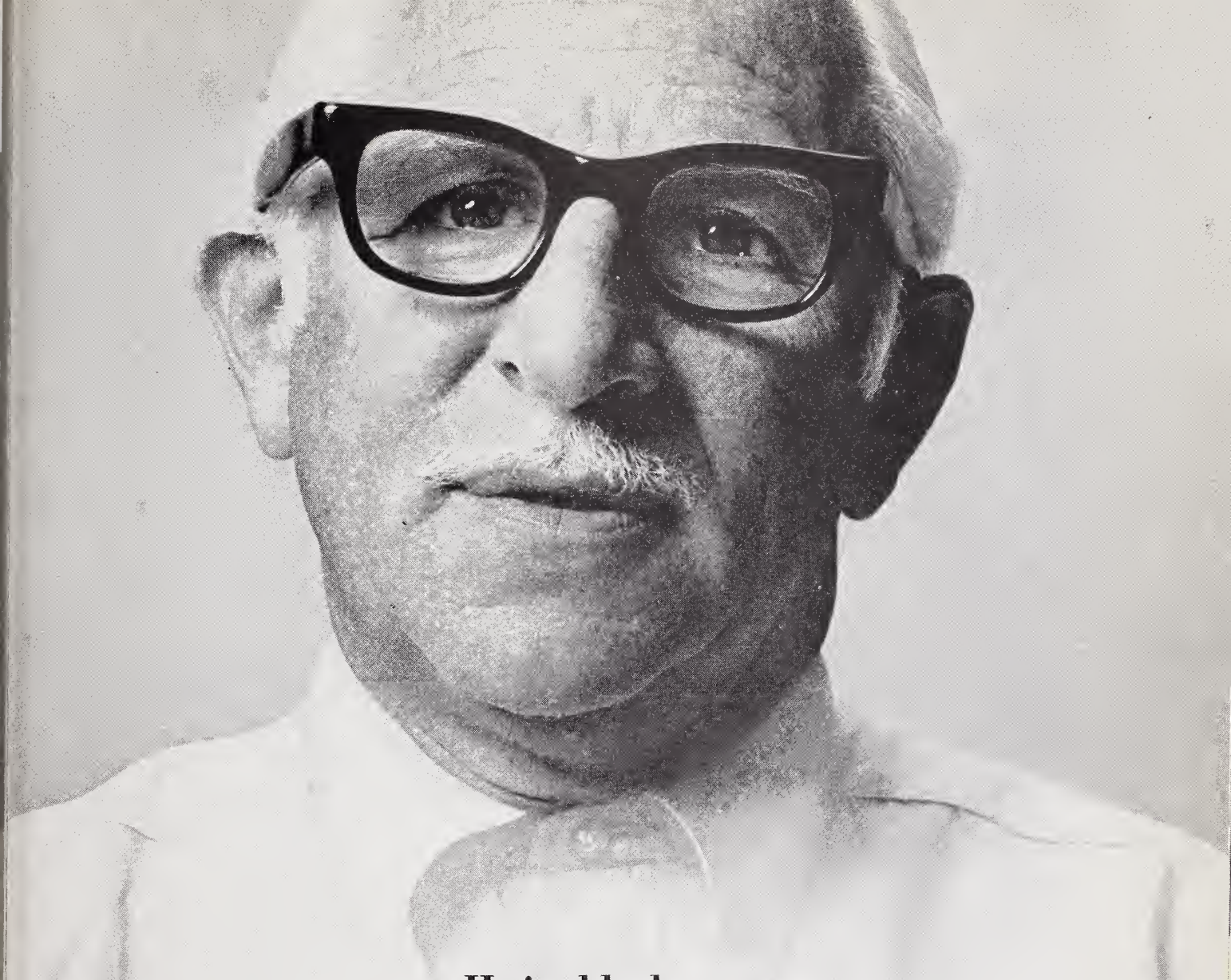
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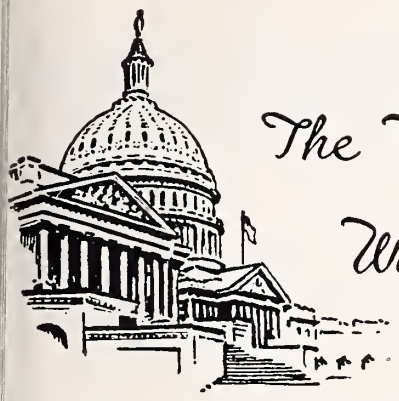
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You might also say that all interns aren't alike, either.





The Month in Washington

Washington, D. C.—A Food and Drug Administration advisory committee found oral contraceptives to be "safe," but reported that British and U. S. studies had established "an etiologic relation between thromboembolic disorders" and their use.

The Advisory Committee on Obstetrics and Gynecology, making its second report on oral contraceptives, said that their benefits sufficiently outweighed the risks so that they could be designated "safe" within the intent of the federal law.

The report said no conclusion could be drawn at this time as to the potential carcinogenicity of oral contraceptives. The Committee called for intensive research along three lines: (1) a possible relationship between hormonal contraceptives and carcinoma of the breast and uterus; (2) determination of the basis and prognosis for metabolic alterations produced by hormonal contraceptives, and (3) development of new methods of contraception.

In its initial report three years ago, the Committee approved oral contraceptives with reservations. It has now said that these reservations appear to have been justified by the adverse reactions which have been reported in both scientific literature and the general press.

The report said scientific studies "suggest that the mortality from thromboembolic disorders attributable to the oral contraceptives is about three per 100,000 women per year, adding less than three per cent to the total age-specific mortality for the users of these drugs." In a U. S. study, the risk of thromboembolism to a woman using hormonal contraceptives was estimated by indirect methods to be 4.4 times that of a non-user.

The report said there is no evidence that any metabolic alterations induced by the oral contraceptives pose serious health hazards.

The effectiveness of oral contraceptives was found to be significantly higher than is the effectiveness of intrauterine devices or traditional methods.

* * *

Abandoning a long court fight, the Internal Revenue Service has reversed itself and ruled that organizations of physicians authorized under state professional-association laws will be treated as corporations for tax purposes.

The IRS announced that it would not appeal to the Supreme Court two recent decisions by U. S. courts of appeal favoring the professional association. In accordance with these court decisions, the IRS said, "Organizations of doctors, lawyers and other professional people organized under state professional association acts will, generally, be treated as corporations for tax purposes."

Nearly all states have laws which offer such tax benefits, including deferment of the tax on pension plan contributions until retirement. [*Iowa, New York and Wyoming are the three states which still have not passed such laws.*]

The court controversy over IRS treatment of the professional associations for tax purposes dated back to the early 1950's. It was given the "Kintner" label in 1954 when an appeals court ruled in favor of the professionals in a case brought by Arthur Kintner, M.D., of Missoula, Montana.

* * *

The federal government has started a program designed to increase enrollment in the nation's schools of medicine and osteopathy by 4,000 over the next four years.

Known as the Physician Augmentation Program, the activity, under the Department of Health, Education and Welfare, supports the addition of 1,000 first-year places, commencing with the fall term of 1970. These places are to be in addition to any increase to which the schools have already committed themselves. Total enrollment through this program is expected to be about 4,000 in the fourth year of its operation. The Physician Augmentation Program is authorized under the Health Manpower Act of 1968.

Grants will be awarded on a national competitive basis to those schools of medicine and osteopathy that document their intention to institute major increases in their first-year enrollments and that appear to have the greatest potential for achieving major increases with their own resources, supplemented by funds allocated under the program.

* * *

Robert H. Finch, Secretary of Health, Education and Welfare, proposed that state Medicaid administrators work more closely with state medical societies on cost-control in the federal-state health care program. He also said that the states should review more claims in their efforts to control Medicaid costs.

Mr. Finch gave his views on controlling Medicaid costs in a letter to Senator Abraham Ribicoff (D., Conn.), who had asked what was being done and what additionally could be done about the rising expense of the program. In answer to a question as to "what states could be doing, under existing law, to control Medicaid costs more efficiently," Mr. Finch said: "One answer is to spend more money on the claims-review function. For example, there are two states where annual Med-

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Indication: Mental depression.

Contraindications: Do not use MAO inhibitors concomitantly or within 2 weeks of the use of this drug. Hyperpyretic crises or severe convulsive seizures may occur with such combinations; potentiation of adverse reactions can be serious or even fatal.

When substituting Pertofrane in patients receiving an MAO inhibitor, allow an interval of at least 14 days. Initial dosage in such patients should be low and increases should be gradual and cautiously prescribed.

The drug is contraindicated following recent myocardial infarction and in patients with a known hypersensitivity to tricyclic antidepressants.

Warning: Activation of psychosis may occasionally be observed in schizophrenic patients. Due to atropine-like effects and sympathomimetic potentiation, use only with the greatest care in patients with narrow-angle glaucoma or urethral or ureteral spasm.

Do not use in patients with the following conditions unless the need outweighs the risk: severe coronary heart disease with EKG abnormalities, progressive heart failure, angina pectoris, paroxysmal tachycardia and active seizure disorder (may lower seizure threshold).

Desipramine and the parent compound, imipramine, have been shown to block the action of guanethidine and related adrenergic neuron-blocking agents.

Hypertensive episodes have been observed during surgery.

The concurrent use of other central nervous system drugs or alcohol may potentiate adverse effects. Since many such drugs may be used during surgery, desipramine should be discontinued prior to elective procedures.

Caution patients on the possibility of impaired ability to operate a motor vehicle or dangerous machinery.

Do not use in women who are or may become pregnant unless the clinical situation warrants the potential risk, and do not use in patients under 12 years of age.

Because of increased sensitivity to the drug, use lower than normal dosage in adolescent and geriatric patients.

Precautions: Potentially suicidal patients require careful supervision and protective measures during therapy. Discontinuation of the drug may be necessary in the presence of increased agitation and anxiety shifting to hypomanic or manic excitement.

Atropine-like effects may be more pronounced (e.g. paralytic ileus) in susceptible patients and in those receiving anticholinergic drugs (including antiparkinsonism agents).

Prescribe cautiously in hyperthyroid patients and in those receiving thyroid medications; transient cardiac arrhythmias have occurred in rare instances.

Periodic blood and liver studies should supplement careful clinical observations in all patients undergoing extended courses of therapy.

Adverse Reactions: The following have been reported: *Nervous System:* dizziness, drowsiness, insomnia, headache, disturbed visual accommodation, tremor, unsteadiness, tinnitus, paresthesias, changes in EEG patterns, epileptiform seizures, mild extrapyramidal activity, falling and neuromuscular incoordination. A confusional state (with such symptoms as hallucinations and disorientation), particularly in older patients and at higher dosage, may require discontinuation of the drug. *Gastrointestinal Tract:* anorexia, dryness of the mouth, nausea, epigastric distress, constipation and diarrhea. *Skin:* skin rashes (including photosensitization), perspiration and flushing sensations. *Liver:* rare cases of transient jaundice (apparently of an obstructive nature) and liver damage. If jaundice or abnormalities in liver function tests occur, discontinue the drug and investigate. *Blood Elements:* bone-marrow depression, agranulocytosis, thrombocytopenia and purpura. If these occur, discontinue the drug. Transient eosinophilia has been observed. *Cardiovascular System:* orthostatic hypotension and tachycardia. Carefully supervise patients requiring concomitant vasodilating therapy, particularly during initial phases. *Genitourinary System:* urinary frequency or retention and impotence. *Endocrine System:* occasional hormonal effects, including gynecomastia, galactorrhea and breast enlargement, and decreased libido and estrogenic effect. *Sensitivity:* urticaria and rare instances of drug fever and cross-sensitivity with imipramine.

Dosage: All patients except geriatric and adolescent: 50 mg. t.i.d. (150 mg. daily). Dosage may be increased up to 200 mg. daily. Geriatric and adolescent patients should usually be started with lower dosage (25 to 50 mg. daily) and may not tolerate higher doses. Dosage may be increased up to 100 mg. daily.

Lower maintenance dosages should be continued for at least 2 months after obtaining a satisfactory response.

Mild anxiety and agitation which may accompany depression usually remit as the depression responds. Occasionally, however, a sedative or tranquilizer may be indicated.

Availability: Maroon and pink capsules of 50 mg. in bottles of 100; pink capsules of 25 mg. in bottles of 100 and 1000. (B)46-530-G

For complete details, please see the full prescribing information.

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icaid expenditures are in excess of one hundred million dollars. One employs seven people for its review function, and the other employs seventy. The latter state has very effective control over costs and utilization.

"But I am coming to believe," he continued, "that a major factor is the degree to which physicians are involved in the program, not simply as purveyors of medical care but also as watchdogs of costs and guardians of quality. They generate the bulk of Medicaid expenditures. They authorize admissions to hospitals and skilled nursing homes, and they write prescriptions. The need for genuine physician participation in controlling costs is self-evident. A state Medicaid administrator would be well advised to make extensive use of his medical advisory committee, and to engineer the plan in detail through the state medical society."

As to what states already are doing, Mr. Finch said: "Some states are using prior authorizations for service (emergencies excepted). Some use fee schedules. Some use audit tolerance levels. Some incorporate parameters of medical care into their data-processing systems. Some develop client and and purveyor profiles. Some use computers to process claims. Others contract the review function to a fiscal agent, e.g., a Blue Cross plan. Some use a medical audit, and some have been doing very little."

Senator Ribicoff had said in his letter to Mr. Finch that he understood "there is very uneven performance of Medicaid program review throughout the nation."

Peer review, under leadership of state and county medical societies, has top priority in the American Medical Association's recommendations for controling costs under both Medicaid and Medicare. A report from the AMA Board of Trustees, approved by the AMA House of Delegates at the 1969 annual convention in New York, strongly urged that:

—"Peer review be assigned the highest priority by the state and county medical societies; that where existing mechanisms exist, they be strengthened, and where they do not, they be promptly established.

—"Quick and decisive action be taken, in appropriate fashion, to discipline those few physicians determined after investigation to be abusing Medicare and Medicaid, either fraudulently or otherwise."

The AMA recommendations for cost control in governmental health programs also include:

—"The promotion of innovative health-service delivery systems for low income communities with emphasis on ambulatory care.

—"Programs by local medical societies to insure preservation of quality health care in the face of cost-containment measures."

★

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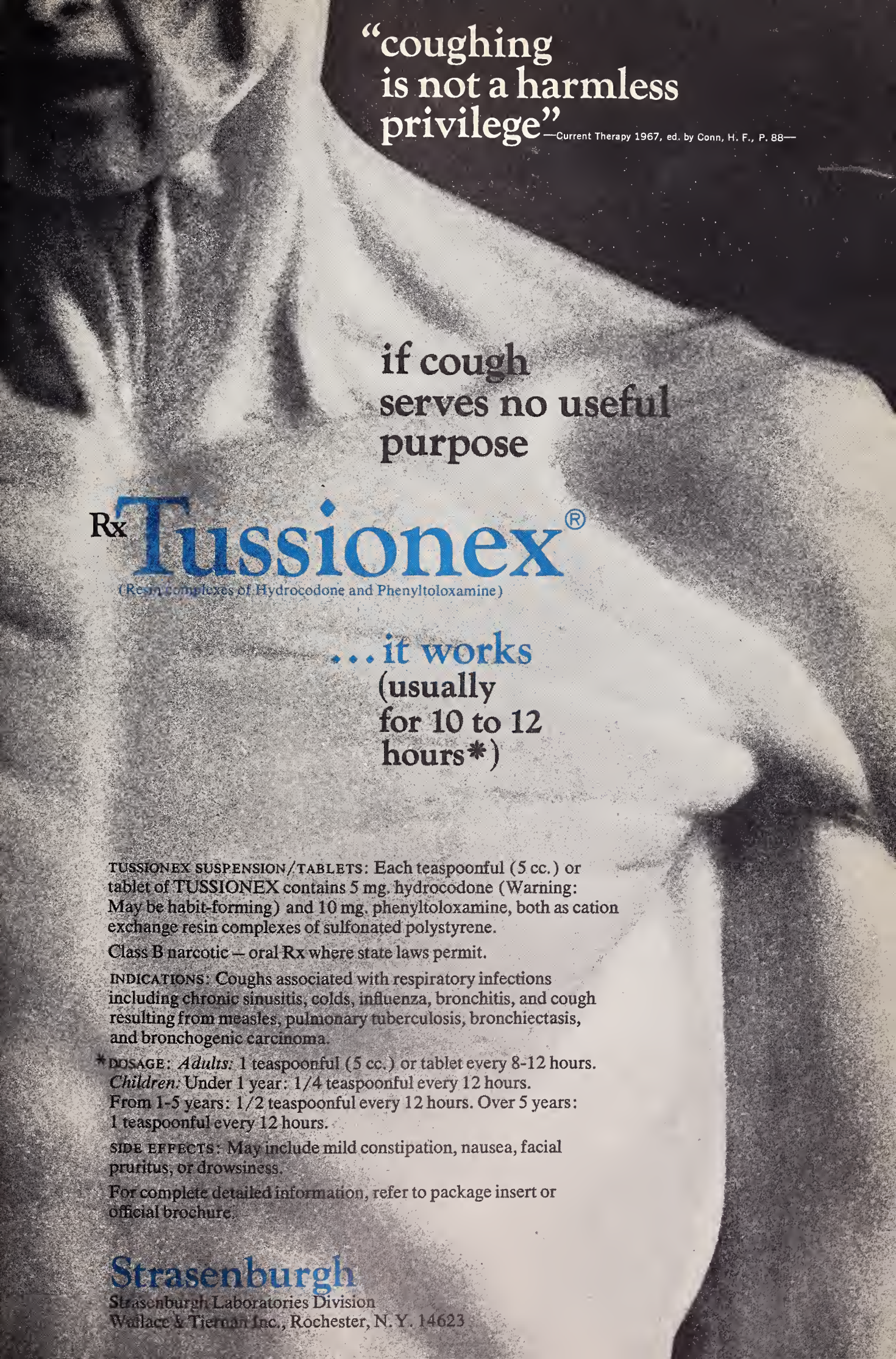
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TUSSIONEX SUSPENSION/TABLETS: Each teaspoonful (5 cc.) or tablet of TUSSIONEX contains 5 mg. hydrocodone (Warning: May be habit-forming) and 10 mg. phenyltoloxamine, both as cation exchange resin complexes of sulfonated polystyrene.

Class B narcotic – oral Rx where state laws permit.

INDICATIONS: Coughs associated with respiratory infections including chronic sinusitis, colds, influenza, bronchitis, and cough resulting from measles, pulmonary tuberculosis, bronchiectasis, and bronchogenic carcinoma.

*DOSAGE: *Adults:* 1 teaspoonful (5 cc.) or tablet every 8-12 hours. *Children:* Under 1 year: 1/4 teaspoonful every 12 hours. From 1-5 years: 1/2 teaspoonful every 12 hours. Over 5 years: 1 teaspoonful every 12 hours.

SIDE EFFECTS: May include mild constipation, nausea, facial pruritus, or drowsiness.

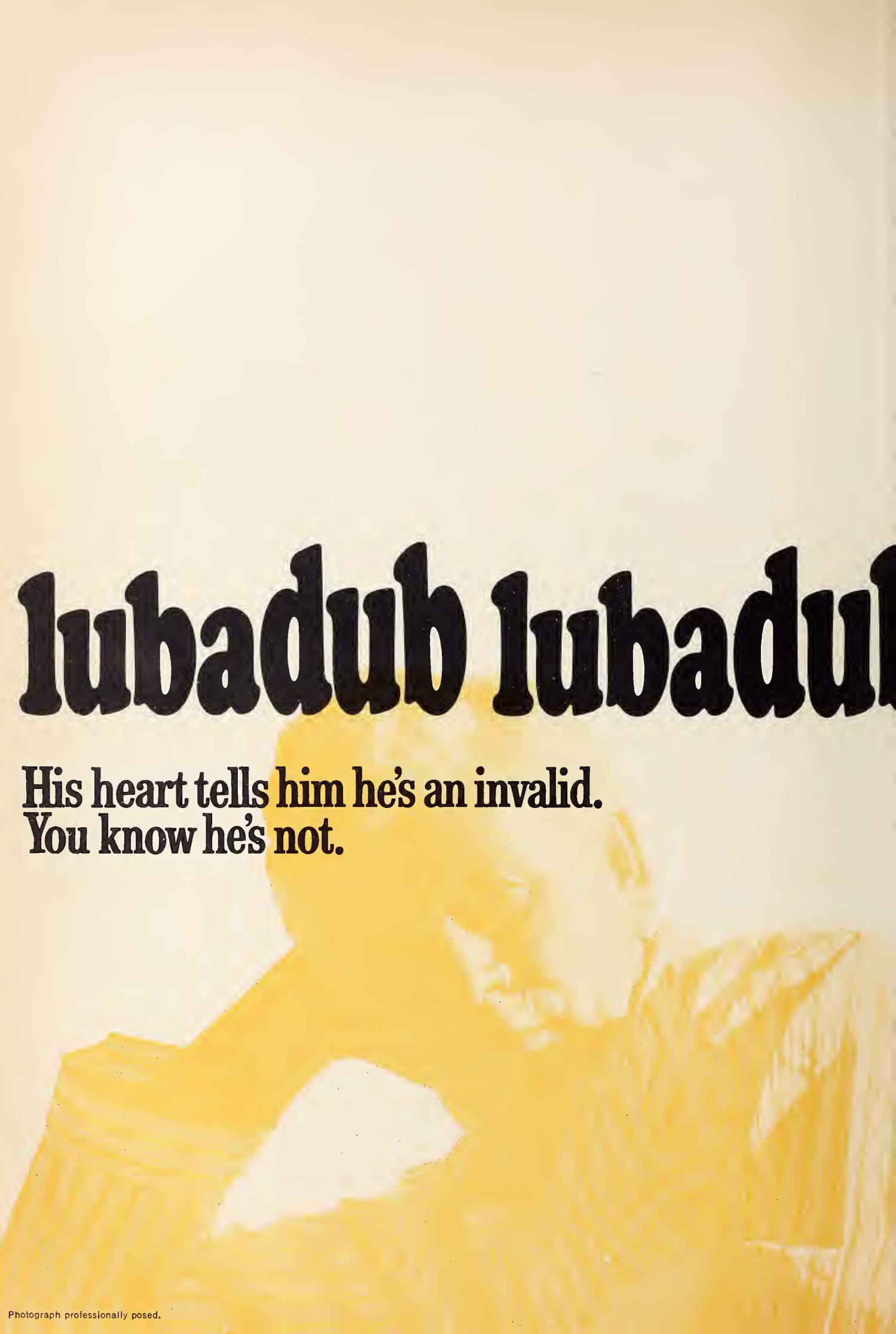
For complete detailed information, refer to package insert or official brochure.

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His heart tells him he's an invalid.
You know he's not.



Photograph professionally posed.

Contraindications: History of sensitivity to meprobamate.

Important Precautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use has been reported to result in dependence or habituation in susceptible persons, as alcoholics, ex-addicts, and other severe psychoneurotics. After prolonged excessive dosage, reduce dosage gradually to avoid possibly severe withdrawal reactions. Abrupt discontinuance of excessive doses has sometimes resulted in epileptiform seizures.

Warn patients of possible reduced alcohol tolerance, with resultant slowing of reaction time and impairment of judgment and coordination.

Reduce dose if drowsiness, ataxia or visual disturbance occurs; if persistent, patients should not operate vehicles or dangerous machinery.

Side Effects include drowsiness, usually transient; if persistent and associated with ataxia, usually responds to dose reduction; occasionally concomitant CNS stimulants (amphetamine, mephentermine sulfate) are desirable. Allergic or idiosyncratic reactions are rare, but such reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Previous history of allergy may or may not be related to incidence of reactions. Mild reactions are characterized by itchy urticarial or erythematous maculopapular rash, generalized or confined to groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have been reported. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. If allergic reaction occurs, meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Treat symptomatically as with epinephrine, antihistamine and possibly hydrocortisone. Aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia have occurred rarely, almost always in presence of known toxic agents. A few cases of leukopenia, usually transient, have been reported on continuous administration.

Meprobamate may sometimes precipitate grand mal attacks in patients susceptible to both grand and petit mal. Extremely large doses can produce rhythmic fast activity in the cortical pattern. Impairment of accommodation and visual acuity has been reported rarely. After excessive dosage for weeks or months, withdraw gradually (1 or 2 weeks) to avoid recurrence of pretreatment symptoms (insomnia, severe anxiety, anorexia). Abrupt discontinuance of excessive doses has sometimes resulted in vomiting, ataxia, tremors, muscle twitching and epileptiform seizures. Prescribe very cautiously and in small amounts for patients with suicidal tendencies. Suicidal attempts have resulted in coma, shock, vasomotor and respiratory collapse and anuria. Excessive doses have resulted in prompt sleep; reduction of blood pressure, pulse and respiratory rates to basal levels; and occasionally hyperventilation. Treat with immediate gastric lavage and appropriate symptomatic therapy. (CNS stimulants and pressor amines as indicated.) Doses above 2400 mg./day are not recommended.

Composition: Tablets, 200 mg. and 400 mg. meprobamate. Coated Tablets, WYSEALS® EQUANIL (meprobamate) 400 mg. (All tablets also available in REDIPAK® [strip pack], Wyeth.) Continuous-Release Capsules, EQUANIL L-A (meprobamate) 400 mg.

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nxiety is expected in the cardiovascular patient.
little may even be desirable.

ut when anxiety is exaggerated . . . when it
nterferes with sleep . . . when it aggravates
ardiovascular symptoms, your help may
e needed.

laturally, you'll want to reassure the patient.

nd perhaps prescribe Equanil (meprobamate)
s adjunctive therapy. It helps relieve anxiety
nd tension specifically, yet gently.

lmost 15 years' use has shown that Equanil
s usually well tolerated as well as effective.
ide effects are generally limited to transient
rowsiness; serious, therapy-interrupting
ide effects are rare.

Equanil®
(meprobamate) Wyeth®



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Terramycin®
(oxytetracycline)

An infection of rapid onset requiring prompt attention. Teenage girl with chills, fever, abdominal pain, backache and nausea. Frequent and urgent urination with burning. On examination—tenderness over kidney. Blood count and urinalysis confirm the diagnosis: acute pyelonephritis. Treatment is initiated with Terramycin. Within a few days of follow-up therapy, the patient is markedly improved. The pretreatment urine culture shows a strain of *E. coli* highly susceptible to Terramycin.

Experience has shown that Terramycin offers special advantages in treating urinary tract infections when strains of causative bacteria are susceptible. Broad-spectrum coverage unaffected by penicillinase. Effective tissue levels to help reach foci of infection in renal parenchyma. High urine levels—excreted by kidney in *active* form.

With Terramycin, you have the assurance that comes with choosing an agent physicians have depended on for over 18 years. In difficult as well as routine cases, when tests reveal susceptible organisms, consider Terramycin. One of the world's most widely used broad-spectrums.

Contraindicated: In individuals hypersensitive to oxytetracycline.

Warnings: Reduce usual oral dosage and consider antibiotic serum level determinations in patients with impaired renal function.

Use of oxytetracycline during the last trimester of pregnancy, neonatal period and early childhood may cause discoloration of developing teeth. This effect occurs mostly during long-term use of the drug, but it has also been observed in usual short-treatment courses.

During treatment with tetracyclines, individuals susceptible to photodynamic reactions should avoid direct sunlight; if such reactions occur, discontinue therapy.

Note: With oxytetracycline, phototoxicity is unknown and photoallergy very rare.

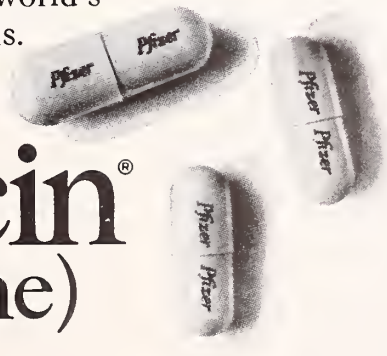
Precautions: Use of broad-spectrum antibiotics occasionally may result in overgrowth of nonsusceptible organisms. Where such infections occur, discontinue oxytetracycline and institute specific therapy. Increased intracranial pressure in infants is a possibility. Symptoms disappear upon discontinuation of therapy.

Adverse Reactions: Nausea, diarrhea, glossitis, stomatitis, proctitis, vaginitis and dermatitis, as well as reactions of an allergic nature, may occur but are rare.

Supply:* Terramycin Capsules: oxytetracycline HCl, 250 mg. and 125 mg. Terramycin Syrup: calcium oxytetracycline, 125 mg. per 5 cc. Terramycin Pediatric Drops: calcium oxytetracycline, 100 mg. per cc.

*All potencies listed are in terms of the standard, oxytetracycline.

More detailed professional information available on request.



Terramycin®
(oxytetracycline)

Pfizer LABORATORIES DIVISION
New York, N.Y. 10017

COMING MEETINGS

IN STATE

Oct. 3-4 **Postgraduate Conference on Urology**, University of Iowa College of Medicine, Iowa City.

Oct. 17-18 **In-House Conference for General Practitioners**, University of Iowa College of Medicine, Iowa City.

Nov. 8-9 **Postgraduate Conference on Radiology**, University of Iowa College of Medicine, Iowa City.

Nov. 12 **Lectures on Surgery**, Des Moines VA Hospital, Euclid Ave. at 30th Street, Des Moines.

CONTINENTAL U. S.

Oct. 1 **Acute Myocardial Infarction (Wisconsin State Heart Association and Adolph Gundersen Medical Foundation)**, Valhalla Hall, Wisconsin State University at La Crosse.

Oct. 1-4 **Postgraduate Course on Vascular Disease sponsored by American College of Physicians and Mayo Graduate School of Medicine**, Clinic's Medical Sciences Bldg., Rochester.

Oct. 2-3 **Postgraduate Course on School Health: School, Sex and Society (Revisited)**, Kansas University Medical Center, Kansas City, Kansas.

Oct. 2-4 **Southeastern Allergy Association**, Long Boat Key, Sarasota.

Oct. 2-4 **Symposium on Portal Hypertension**, Waldorf-Astoria Hotel, New York.

Oct. 2-4 **American Association for Surgery of Trama**, Benson Hotel, Portland, Oregon.

Oct. 3 **Postgraduate Course on Medical Technology**, Cleveland Clinic, 2020 East 93rd Street, Cleveland.

Oct. 6-10 **Postgraduate Course on High Risk Infant Care (Limited) sponsored by University of Colorado School of Medicine**, Denver.

Oct. 6-10 **American College of Surgeons, Annual Meeting**, Fairmont Hotel, San Francisco.

Oct. 8-11 **National Conference on Physicians and Schools (12th)**, Pick-Congress Hotel, Chicago.

Oct. 8-11 **National Conference on Coronary Care and Continuing Medical Education in Community Hospital and Environs sponsored by American Heart Association, Heart Disease and Stroke Control Program of USPHS and Florida Regional Medical Program**, Municipal Auditorium, Pensacola.

Oct. 8-11 **Medical Oncology Today—An Internist's Guide to Cancer Chemotherapy sponsored by American College of Physicians**, University of Minnesota Medical School, Minneapolis.

Oct. 8-12 **Pennsylvania Medical Society**, Marriott Motor Hotel, Philadelphia.

Oct. 12-13 **Symposium on Organ Transplantation sponsored by Honolulu Medical Group Research Foundation and University of Hawaii School of Medicine**, Honolulu International Center, Honolulu, Hawaii.

Oct. 12-16 **American Society of Plastic and Reconstructive Surgeons**, Chase-Park Plaza, St. Louis.

Oct. 12-17 **American Academy of Ophthalmology and Otolaryngology**, Palmer House, Chicago.

Oct. 13-16 **Interstate Postgraduate Medical Association of North America**, Sheraton-Cleveland, Cleveland.

Oct. 13-16 **Indiana State Medical Association**, Columbia Club, Indianapolis.

Oct. 13-24 **Clinical Management and Control of Tuberculosis**, National Jewish Hospital, Denver.

Oct. 14-22 **Eleventh Congress of Pan-Pacific Surgical Association**, Honolulu.

Oct. 15 **5th Annual Symposium on Recent Adcances in Renal Disease presented by Kidney Foundation of Illinois, Inc.**, Grand Ballroom, LaSalle Hotel, Chicago.

Oct. 16-17 **American Association for Automotive Medicine**, Mayo Auditorium, University of Minnesota, Minneapolis.

Oct. 16-18 **Arizona Academy of General Practice (16th Annual)**, Safari Hotel, Scottsdale.

Oct. 16-18 **Central Association of Obstetricians and Gynecologists**, Sheraton-Peabody Hotel, Memphis.

Oct. 16-19 **Medical Society of Virginia**, Cavalier Hotel. Virginia Beach

Oct. 17-18 **Bryan Days, Selected Problems of GI Tract sponsored by University of Nebraska Medical Center**, Bryan Memorial Hospital, Lincoln.

Oct. 18-23 **38th Annual Meeting of American Academy of Pediatrics**, Palmer House, Chicago.

Oct. 19-22 **American College of Gastroenterology**, Rice Hotel, Houston.

Oct. 20-24 **Office Psychiatry for Internists sponsored by American College of Physicians**, Faulkner Hospital, Boston.

Oct. 21-22 **Postgraduate Course on Medicine and Religion**, Kansas University Medical Center, Kansas City, Kansas.

Oct. 22-24 **16th Western Cardiac Conference**, University of Colorado Medical Center, Denison Auditorium, Denver.

Oct. 23 **Fifth Annual Symposium on Air Pollution and Respiratory Disease sponsored by New York State Action for Clean Air Committee**, New York University Medical Center, New York.

Oct. 23-25 **American Academy of Clinical Toxicology**, Palmer House, Chicago.

Oct. 23-25 **47th Annual Fall Clinical Conference sponsored by Kansas City Southwest Clinical Society**, Hotel Muehlebach, Kansas City, Missouri.

Oct. 23-25 **Annual Course in Postgraduate Gastroenterology sponsored by American College of Gastroenterology**, Rice Hotel, Houston.

Oct. 25-26 **Midwest Forum on Allergy**, Hilton Hotel, Pittsburgh.

Oct. 25-29 **Annual Meeting of American Society of Anesthesiologists**, San Francisco Hilton, San Francisco.

Oct. 27 **Oral Cancer Seminar sponsored by University of Colorado School of Medicine**, Humphreys Postgraduate Center, Denver.

Oct. 27-31 **Office Psychiatry for Internists sponsored by American College of Physicians**, Faulkner Hospital, Boston.

Oct. 29-30 **American Association for Study of Liver Diseases**, Sheraton Hotel, Chicago.

Oct. 29-31 **Symposium on Pharmacology of Selected Drugs Used in Dermatology sponsored by New York University School of Medicine**, New York University Medical Center, New York.

Oct. 29-Nov. 2 **American College of Chest Physicians First Fall Seientific Assembly**, Chicago.

Oct. 30-Nov. 3 **Society of Teachers of Family Medicine. Annual Educational Meeting**, Netherland Hilton Hotel, Cincinnati.

Oct. 31-Nov. 1 **Obstetric Pediatric Conference sponsored by University of Nebraska Medical Center and Denver Children's Hospital**, Lincoln General Hospital, Lincoln.

Nov. 2-5 **Civil Aviation Medical Association**, Houston.

Nov. 2-5 **International Symposium on Recent Advances in Study of Atherosclerosis**, Conrad Hilton Hotel, Chicago.

Nov. 3-5	**Omaha Mid-West Clinical Society**, Hotel Fontanelle, Omaha.
Nov. 3-6	**Postgraduate Course on Internal Medicine**, Kansas University Medical Center, Kansas City, Kansas.
Nov. 3-7	**Nuclear Medicine: Diagnosis and Treatment of Disease With Radionuclides Given Internally sponsored by American College of Physians**, University of Michigan Medical Center, Ann Arbor, Michigan.
Nov. 3-7	**Mechanisms of Disease and Modern Therapy sponsored by American College of Physicians**, University of Chicago, Chicago.
Nov. 6-7	**Postgraduate Course on Perspectives in Lipids and Lipoproteins (Newer Methods and Applications)**, Cleveland Clinic, 2020 East 93rd Street, Cleveland.
Nov. 8	**Cornhusker Surgery Conference sponsored by University of Nebraska Medical Center**, Lincoln General Hospital, Lincoln.
Nov. 8-14	**American School Health Association**, Municipal Auditorium, Philadelphia.
Nov. 9-12	**Conference on Respiratory Therapy sponsored by Children's Hospital Medical Center, New England Deaconess Hospital, and Lahey Clinic Foundation**, Statler Hilton Hotel, Boston.
Nov. 9-13	**American Fracture Association**, Sheraton Hotel, Columbus.
Nov. 10-14	**American College of Preventive Medicine**, Philadelphia.
Nov. 10-14	**Postgraduate Course on Occupational Health for Nurses sponsored by New York University Medical Center in cooperation with American Association of Industrial Nurses**, New York University Medical Center, New York.
Nov. 11-14	**Postgraduate Course on Clinical Electrodiagnosis of Neuromuscular Diseases**, New York University Medical Center, New York.
Nov. 12-13	**Postgraduate Course on Diseases of Small Intestine and Colon**, Cleveland Clinic, 2020 East 93rd Street, Cleveland.
Nov. 12-14	**American College of Obstetricians and Gynecologists, District Meeting**, St. Paul Hilton, St. Paul.
Nov. 12-15	**Today's Hospital Problems: An Interdisciplinary Approach for Chiefs of Staff, Hospital Directors and Governing Personnel sponsored by Mound Park Hospital Foundation, Inc. and University of Florida College of Medicine**, Tides Hotel and Bath Club, Redington Beach, Florida.
Nov. 13-15	**Annual Pediatric Postgraduate Symposium sponsored by Kidney Foundation of Houston and Greater Gulf Coast**, Baylor University College of Medicine and Texas Children's Hospital, Houston.
Nov. 13-15	**American Thyroid Association**, Drake Hotel, Chicago.
Nov. 13-18	**American Heart Association**, Memorial Auditorium, Dallas.
Nov. 16-19	**76th Annual Meeting of the Association of Military Surgeons of the United States**, Sheraton-Park Hotel, Washington, D. C.
Nov. 16-20	**22nd Annual Meeting of American Association of Blood Banks**, Shamrock Hilton, Houston.
Nov. 17-21	**Postgraduate Course in Correlative Neuroradiology sponsored by New York University School of Medicine**, New York.
Nov. 19-20	**Postgraduate Course on Neurosurgical Technics**, Cleveland Clinic, 2020 East 93rd Street, Cleveland.
Nov. 19-21	**Postgraduate Course on Emergency Service Procedures sponsored by University of Colorado School of Medicine**. Denver.
Nov. 19-22	**Western Surgical Association**, Statler-Hilton Hotel, Dallas.
Nov. 19-23	**Academy of Psychosomatic Medicine**, Mt. Shadows Hotel, Scottsdale, Arizona.
Nov. 21	**Postgraduate Course on Neurology for General Practitioners sponsored by University of Nebraska Medical Center**, Campus of Medical Center, Omaha.
Nov. 21-22	**Delivery of the Medical Care in the 1970's sponsored by the Institute of Medicine of Chicago**. Ambassador West Hotel, Chicago.
Nov. 29	**AMA Medical Services Conference on Medical Review Activities**, Denver.
Nov. 30	**11th National Conference on Medical Aspects of Sports**, Cosmopolitan Hotel, Denver.
Nov. 30-Dec. 3	**American Academy for Cerebral Palsy**, Caesar's Palace, Las Vegas.
Nov. 30-Dec. 3	**Clinical Convention, American Medical Association**, Denver.
Nov. 30-Dec. 5	**Radiological Society of North America**, Palmer House, Chicago.

ABROAD

Oct. 2-3	**International Union of Therapeutics, 10th International Congress**, Paris.
Oct. 6-11	**International Congress of Radiology (12th)**, Tokyo.
Oct. 12-Nov. 2	**Georgetown University School of Medicine, Fourth Postgraduate Seminar Cruise, S. S.** Raffaello, New York-Mediterranean, Rome.
Oct. 15-17	**Association of Life Insurance Medical Directors of America, Annual Meeting**, Quebec City.
Oct. 16-18	**National Conference on Obstetrics and Gynecology**, Bucharest, Rumania.
Oct. 16-18	**Postgraduate Course in Intensive Management of Pulmonary Disease sponsored by Ameriean College of Chest Physicians**, Winnipeg, Canada.
Oct. 26-Nov.1	**Pan-American Congress of Gastroenterology XI**, Puerto Rico Sheraton Hotel, San Juan.
Nov. 20-27	**Latin American Congress of Pathology (7th)**, Buenos Aires.
Nov. 21-22	**National Conference of Psychiatry**, Bucharest, Rumania.
Nov. 22-23	**Norwegian Oto-laryngological Society**, Oslo.

Coming Lectures on Surgery at the Des Moines VA Hospital

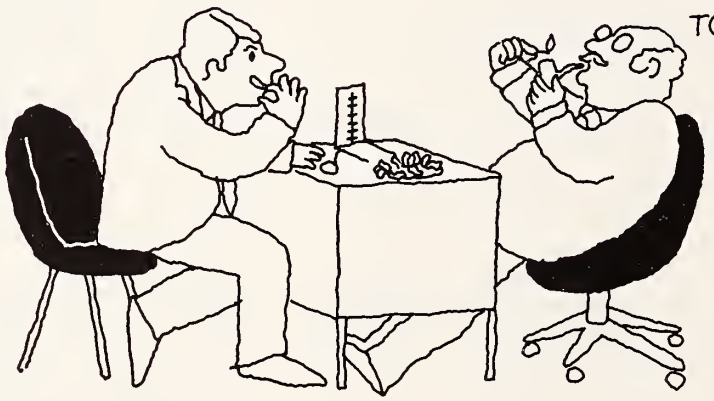
At the Des Moines VA Hospital on Wednesday, November 12, beginning at 1:15 p.m., Harold Laufman, M.D., director of the Institute for Surgical Studies, Montefiore Hospital, and professor of surgery at Albert Einstein College of Medicine, New York City, will deliver two lectures: "The Plan for Managing Unexpected Bleeding Related to Surgical Procedures," and "Management of Mesenteric Occlusive Lesions." Physicians are invited to attend.

On Friday, December 5, beginning at 1:30 p.m., the speaker is to be J. Englebert Dunphy, M.D., head of surgery at the University of California College of Medicine, San Francisco. The topics on which he will speak have yet to be announced.

Both meetings will be held in Room 423 at the Hospital.

The Apprehensive Hypertensive



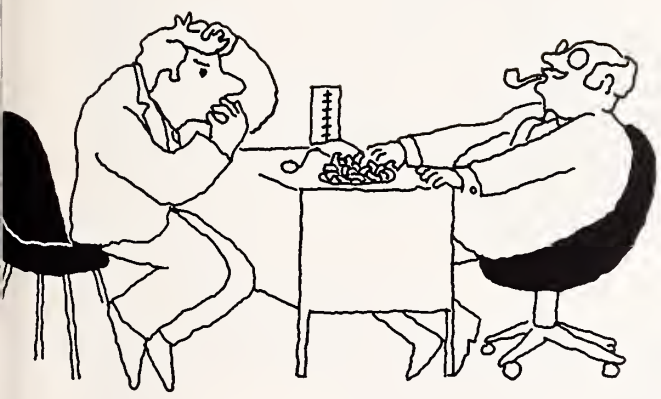


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chlorthalidone 50 mg.
reserpine U.S.P. 0.25 mg.

Regroton®: chlorthalidone 50 mg., reserpine U.S.P. 0.25 mg.
Indications: Hypertension. *Contraindications:* History of mental depression, hypersensitivity, and most cases of severe renal or hepatic diseases. *Warning:* With the administration of enteric-coated potassium supplements, which should be used only when adequate dietary supplementation is not practical, the possibility of small-bowel lesions (obstruction, hemorrhage, and perforation) should be kept in mind. Surgery for these lesions has frequently been required and deaths have occurred. Discontinue coated potassium-containing formulations immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Discontinue one week before electroshock therapy, and if depression or peptic ulcer occurs. *Use in pregnancy:* Because chlorthalidone may cross the placental barrier and appear in cord blood and thiazides may appear in breast milk, this drug should be used with care in pregnant patients and nursing mothers. When used in women of childbearing age, the potential benefits of the drug should be weighed against the possible hazards to the fetus. Use of chlorthalidone may result in fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult. Increa respiratory secretions, nasal congestion, cyanosis and anorexia occur in infants born to reserpine-treated mothers. *Precautions:* An pertensive therapy with this drug should always be initiated cautio in postsympathectomy patients and in patients receiving gangli blocking agents, other potent antihypertensive drugs, or curare. Rec dosage of concomitant antihypertensive agents by at least one-hal avoid hypotension during surgery, discontinue therapy with this a two weeks prior to elective surgical procedures. In emergency surg use, if needed, anticholinergic or adrenergic drugs or other suppo measures as indicated. Because of the possibility of progressio renal damage, periodic kidney function tests are indicated. Discont if the BUN rises or liver dysfunction is aggravated. Hepatic coma be precipitated. Electrolyte imbalance, sodium and/or potassium pletion may occur. If potassium depletion should occur during ther the drug should be discontinued and potassium supplements g provided the patient does not have marked oliguria. Take particular in cirrhosis or severe ischemic heart disease and in patients recei

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Scientific Articles

Carbon Monoxide Intoxication and Poisoning

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ACCIDENTAL OR INTENTIONAL exposure to carbon monoxide (CO) is a common occurrence in modern society, for it is as ubiquitous as the cigarette and the automobile, and it is dangerous even in low concentrations.

Traditional studies of CO and the majority of reports published in professional journals and newspapers have emphasized the dramatic effect of heavy exposure. Examples include the teenage couple killed by CO leaking from their worn-out muffler through the floor boards of their parked car; an 18-month-old child found dead on the back seat of an old automobile although the parents, riding in the front seat, had experienced only mild headaches; a 21-year-old woman found in her car in the family garage, a note on the seat beside her; and an elderly couple who were unaware of the defect in their open gas heater.

Death from CO poisoning can easily be overlooked by medical examiners, pathologists and police officers. It is also important for the clinician to be aware of the hazards of non-lethal levels of CO, for there is a widely accepted but utterly mistaken adage, "If carbon monoxide does not kill, it does not injure." That statement has lulled physicians into false optimism when treating acute sublethal but clinically-apparent CO poisoning. Thus a patient may be discharged from the hospital, only to return days or weeks later with permanent brain damage.

Equally important, though less dramatic, is the relationship between mild CO intoxication and such chronic complaints as headache, irritability and fatigability, and to functional impairments of the senses and to central-nervous-system symptoms. There is the well known propensity of CO to cause electrocardiographic irregularities and to aggravate other disease conditions such as arteriosclerotic heart disease. The role of CO in accidents has not been defined, although it has been conclusively shown that low concentrations of the gas diminish visual acuity, shorten the attention span and compromise coordination—all of which effects predispose to accidents. With environmental levels of it increasing, CO intoxication and poisoning become a clinical and epidemiologic problem of immediate, if not urgent, interest to the medical profession.

SOURCES OF THE GAS

CO, the commonest air pollutant, is a product incidental to the incomplete combustion or explosive burning of fossil fuels or other carbonaceous material. CO is slightly lighter than air (specific gravity 0.967 at 20°C.), colorless, tasteless and odorless. Unusual odors result from the combustion of other materials which may also be toxic, but serve to signal the presence of this dangerous gas.

There are many sources of CO, and house-

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wives, garage workers and motor-vehicle operators are particularly vulnerable. Leakage from worn out or broken automobile mufflers or manifolds is a common source. Another offender is the faulty non-electric heating appliance of which oil- or gas-burning space heaters are prime examples. Also a defective flue or an obstructed chimney may lead to a build-up of CO in the home. Shortly after moving to Iowa, I removed cardboard, old curtains, a bird's nest complete with eggshells, and a large wasp nest from the chimney of a gas-log fireplace. That fireplace is still useless, however, for the chimney is poorly designed, and downdrafts could blow the combustion fumes back into the room. It is easy to see how the unwary can be killed by CO. In the United States virtually all domestic gas is natural gas (propane or butane, or a mixture of methane and ethane) containing no CO. Yet this should not provide any of us a feeling of security, for like any other fuel natural gas produces CO when it is incompletely burned.

The amount of CO in cigarette smoke varies between 1 and 2.5 per cent by volume,[7] and can create discomfort not only for the addict but also for others in the environment. This fact is attested to by the complaints of those who have spent time in a conference room filled with smoke. For the average smoker, the concentration of CO reaching the alveoli is about 0.04 per cent (400 parts per million). The importance of cigarette-produced CO is demonstrated by samplings from fleet submarines submerged for extended periods. In 30 hours, concentrations may reach 0.01 per cent (100 parts per million),[8] with cigarette smoke accounting for 75 to 80 per cent of the CO production.[9]

Minute traces of CO can be found in the blood in the absence of smoking or exposure to gas from other external sources. They are attributed to endogenous production of CO as an *in vivo* catabolic byproduct of hemoglobin breakdown into bile pigments. Endogenous CO production in the normal adult is estimated at approximately 0.5 to 1.0 milliliter per hour. This is not clinically significant except in patients undergoing anesthesia, where the CO concentrations in rebreathing anesthesia circuits may exceed 0.005 to 0.01 per cent (50 to 100 parts per million).[10] The anesthesiologist can circumvent this effect by opening and flushing the closed systems periodically to remove the excess CO.

MAGNITUDE OF THE PROBLEM

After alcohol, CO is the commonest fatal poison in this country. In the average year at least 10,000 firemen are felled by the fumes from burning buildings—the injurious agent being CO in most instances[1]—and it is impossible to ascertain the incidence of permanent injury to health, or the losses in the form of compensation and medical expense. Based on samplings of hospital records throughout Iowa, it is estimated that over 680 patients from the general population were hospitalized for CO poisoning during the years 1963 through 1967.[2]

Most of the CO polluting the atmosphere is produced from gasoline-powered motor vehicles. In New York City alone, auto traffic produces 8.3 million pounds of CO daily.[3] The concentration of CO in the exhaust from individual gasoline engines depends upon the type and condition of the engine and upon the speed. CO production varies from 1 volume per cent by the new, well adjusted engine operated at idling speed, to 14 volumes per cent (140,000 parts per million) by the badly adjusted old engine at full throttle. The average automobile produces one-sixth pound of CO per mile of travel at 25 mph. Diesel engines are reported to produce 0.03 volumes per cent when idling, and 0.4 volumes per cent at full engine speed.[4] In just five minutes a CO concentration of 600 to 1,000 parts per million (ppm) can be produced by a car with its motor running *in a garage with the door open.*[5] In a closed garage, the level of CO may reach 2,500 ppm after the car has run for five minutes.[6]

House fires produce concentrations of CO up to 50,000 ppm (5 per cent), and even a small fire in bedding or overstuffed furniture can produce lethal levels. Forty-six ounces of cotton contain a pound of carbon as CO, and an ounce of CO is equivalent to 1 per cent of the gas in 100 cubic feet of air. Therefore, burning three pounds of cotton in an unventilated 10 x 10 x 16 ft. room produces a 1 per cent CO concentration. A smoldering fire in a bed, sofa or overstuffed chair can soon charge the atmosphere with lethal amounts of CO. It often is mistakenly supposed that a fire in a closed space is dangerous because it exhausts the supply of oxygen. A fire will flicker out at an oxygen concentration of about 16 per cent, in

which human beings can still breathe and function. A fire in a closed space is dangerous *not because it exhausts oxygen, but because it emits CO!*

The estimated CO tonnage emitted into the atmosphere in the United States exceeded more than 87 x 10^6 during 1966 alone, and its persistence in the lower atmosphere before it can be oxidized is variously estimated as between four months and five years![11]

THE PHYSIOLOGY OF CO INTOXICATION AND POISONING

CO cripples by hypoxia and kills by asphyxia. It is not a direct chemical poison in the same sense as chlorine and mustard gas. Rather it does its damage by depriving the tissues of oxygen. Blood oxygen tensions must be maintained above a critical level, for aerobic metabolism at the cellular level depends upon the maintenance of tissue levels of oxygen. The more sensitive tissues such as the brain suffer first, and children, whose rates of respiratory exchange are high, will die sooner than adults following exposure to identical atmospheric concentrations of CO.

CO poisoning occurs when the inhaled gas comes in contact with red blood cells in the pulmonary capillaries and combines with their hemoglobin to form carboxyhemoglobin (COHb). The rate at which this reaction occurs is over 200 times more rapid than the rate of reaction of hemoglobin and oxygen. COHb is a stable compound which dissociates 250 times more slowly than does the loosely combined oxyhemoglobin, The formation of COHb prevents the oxygen from entering into combination with hemoglobin, and consequently oxygen cannot be supplied to the vital organs in sufficient quantity. The hemoglobin in combination with CO is effectively removed from circulation, and for all practical purposes the patient is rendered "anemic." In a sense this phenomenon is comparable to a massive hemorrhage depriving the body of the red cell mass necessary to transport oxygen.

CO not only displaces the oxygen from hemoglobin by forming COHb, but its combining with hemoglobin to form COHb increases the affinity of the remaining hemoglobin for oxygen. This—the so-called "Haldane effect"—serves to lower the oxygen tension required in tissue if oxygen is to be extracted from oxyhemoglobin. In other words, COHb suppresses the dissociation of oxygen to a degree roughly proportional to the concentration of COHb present.[12] Therefore the percentage of hemoglobin available for oxygen transport and release to the tissues is diminished more than the percentage concentration of COHb might lead one to expect. The clinical significance of this is illustrated by the fact that a normal man with 16 Gm./100 ml. of hemoglobin will collapse and may die when half of his 16 Gm./100 ml. has combined with CO, whereas an anemic man with only 8 Gm./100 ml. of hemoglobin but with no CO can function reasonably well.

The fact that CO displaces oxygen from the hemoglobin molecule as well as inhibits the dissociation of oxyhemoglobin at the tissue level does not mean that an individual exposed to low concentrations of CO (50 to 100 ppm) will continue to absorb the gas until lethal blood levels are reached. The concentration of CO in blood depends on the partial pressure of both the CO and the oxygen in the respired air. When a normal man is exposed to air containing CO, he absorbs 50 to 60 per cent of the inspired CO into his blood during the early stages of the exposure, and absorption then continues slowly until equilibrium is reached. Intake and elimination are most rapid when the pressure gradient is greatest. Therefore increasing the oxygen concentration of the ambient air from 20 to 98 per cent decreases the CO uptake, for the rate of reaction between CO and hemoglobin is inversely proportional to the oxygen present.[13]

Because individuals who smoke from 20 to 30 cigarettes daily have a COHb ranging from 3 to 10 per cent,[14] there is a widespread but mistaken idea that smokers are more susceptible to environmental CO than are non-smokers. CO from cigarettes and CO in the ambient air are not additive in their biologic effects. CO is absorbed only when the pressure of CO in the ambient air exceeds that in the pulmonary capillary blood. Thus, persons with COHb levels of 5 per cent as a result of smoking do not absorb further CO unless the environmental CO concentrations exceed 0.003 to 0.004 per cent.

Not only does CO react with hemoglobin to form COHb, but it also combines with the myoglobin of the muscles to form carboxymyoglobin. The importance of carboxymyoglobin has not been determined. Other proteins, in-

TABLE 1

CORRELATIONS OF ATMOSPHERIC CARBON MONOXIDE, EXPOSURE AND CARBOXYHEMOGLOBIN[19-21]

Carbon Monoxide (CO) in Air (per cent)	Duration of Exposure (80 per cent equilibrium)	Carboxyhemoglobin (COHb) (per cent of blood-CO saturation)
*0.01 (100 ppm)	6 or more hours	17
0.02 to 0.03	5 to 6 hours	23 to 30
0.04 to 0.06	4 to 5 hours	36 to 44
**0.1 (1,000 ppm)	3 or more hours	50
0.2	1 hour	55 to 60
0.3	30 minutes	50
0.4	20 to 30 minutes	68
0.5 to 1.0	2 to 15 minutes	75

* An atmospheric CO concentration of 0.01 per cent leads to a COHb saturation of 17 per cent, no matter how long the exposure.
** An atmospheric CO concentration of 0.1 per cent leads to a COHb saturation of 50 per cent, no matter how long the exposure. One half of the available hemoglobin will be converted to COHb, and half will remain available for combination with oxygen, for at this point an equilibrium in the blood is reached according to the law of mass action.

cluding several enzymes, react *in vitro* with high concentrations of CO. At present most evidence indicates that if such reactions are biologically significant, they occur only with elevated CO tensions, and are not clinically significant.[15]

CO CONCENTRATIONS IN AIR AND BLOOD: SYMPTOMS AND DEATH

Numerous attempts have been made to determine the maximum allowable concentrations of CO in the air. The American Conference of Governmental Industrial Hygienists assumes that normal persons probably will not be affected adversely if the CO concentration in the atmosphere is kept below 50 ppm, and it recommends that short-term peaks of CO in an industrial atmosphere should not exceed 75 ppm.[16] Under working conditions, however, exposure of healthy adult men to concentrations approaching 100 ppm resulted in no health impairment, as shown by a study of workers in the Holland Tunnel.[17] Over a 13-year span, a total of 156 men were so exposed and suffered no apparent ill health from the CO.

Though the concentration of CO in the air is most important, there are other factors which must be considered. The toxicity of CO also depends upon the frequency and durations of exposures, on the temperature and humidity, on the general health of the individual, and on the type and amount of physical exercise during exposure. It takes only 20 minutes while working, or 30 minutes while walking. to incur the same degree of blood-CO saturation (as COHb) that one gets in 60 minutes while resting.[18] There also are considerable individual variations in CO uptake, varying up to 20 per cent from person to person, although it appears that each individual is consistent in his CO uptake.[13] This explains why one person may experience symptoms of CO intoxication while another in the same atmosphere has no complaints.

Clinical observations, experimental studies in animals and man, and the findings of toxicologists have made it possible to draw up a relative scale correlating atmospheric CO levels and blood-CO saturations. See Table 1, which correlates atmospheric CO, duration of exposure and blood-carboxyhemoglobin saturations.[19, 20, 21] The duration of exposure must be taken into consideration, for the uptake of CO by blood is most rapid during the first few minutes of exposure, when the pressure gradient between alveolar air and pulmonary capillary blood is greatest.

The signs and symptoms of acute CO intoxication increase in magnitude and severity with rising levels of CO as COHb. It must again be emphasized that age, health and the duration of exposure greatly influence the concentration of CO in the blood that is necessary to produce symptoms. Other factors such as ingestion of drugs or alcohol, and conditions such as cardiac and respiratory diseases and pregnancy and anemia are also significant, for

they have the effect of lowering the threshold at which CO begins to affect the subject. Much of what we know about the symptoms of CO intoxication is due to the careful and often heroic experiments of Haldane, who repeatedly exposed himself to CO gas, described his subjective symptoms and performed blood-CO measurements on himself.[22]

The degree of hypoxia caused by 5 to 10 per cent COHb concentrations is not, by itself, disabling and is not associated with acute symptoms. However such concentrations do lower the altitude tolerance by about 335 feet for every per cent of COHb present,[23] and explain why smoking is not recommended for athletes. Smokers, who may have up to a 10 per cent CO saturation of the blood, are at a disadvantage in competition with non-smokers. A 10 to 20 per cent saturation is associated with mild headaches and vasodilatation, and measurable losses in muscular coordination, reaction time and sensory perception. At between 20 and 30 per cent COHb an individual experiences a throbbing headache, giddiness, faintness, nausea, diminished vision and hearing, vomiting and collapse with loss of sphincter control. At between 25 and 35 per cent COHb a state of anoxemia exists which is aggravated by altitude as well as by diseases and drugs. At over 40 per cent COHb there is a probability of collapse, and death may supervene unless the individual is removed from the CO-laden atmosphere. At more than 60 per cent COHb there are coma, convulsions, Cheyne-Stokes respiration, bradycardia and shock, and death is imminent.

Lethal concentrations of COHb differ because of individual variations, and the environmental circumstances become important. The individual who is comatose in a CO-laden atmosphere will continue to absorb the gas, and the saturation of his blood often reaches levels in excess of 70 per cent. This commonly occurs in house fires or in CO poisonings in a closed garage where the atmospheric CO concentration is over 2 per cent and may reach 5 to 7 per cent. Persons exposed to concentrations in the range of 0.1 per cent for extended periods die with COHb levels in the neighborhood of 50 per cent. In patients with COHb concentrations up to 50 or 60 per cent the intoxication may still be reversible, however, for Haldane survived a saturation level of 56 per cent. In the elderly, the diseased and the weak, a lethal COHb level may be only 30 per cent.

In death from acute CO poisoning the viscera, blood and skeletal muscles are pink to cherry-red as a result of COHb and carboxymyoglobin. This color is not pathognomonic of CO poisoning, for it may be encountered in cyanide poisoning or in death due to freezing. Also, occasionally, when a dead body lies on a cold, moist surface or is immersed in cold water, oxygen diffuses through the skin to the capillary blood, and the result is a reddish lividity. When the cause of death is freezing, the venous blood is oxygenated because cold shifts the oxygen dissociation curve, and oxygen is not released at the tissue level. The resultant red coloration is grossly indistinguishable from that of CO poisoning. Cyanide may produce a reddish color in the blood and tissue if there is diffusion from the stomach to the erythrocytes to form cyanhemoglobin. Cyanide is a cellular poison, and terminally there may be hyperventilation and complete oxygenation, making the blood bright red.

Once formed, COHb persists after death and may be detectable in a putrefying body. Traces sufficient to produce a clue as to the cause of death may be found in bone marrow or in the muscles of bodies in an advanced state of decay. Putrefaction is not associated with CO production, and there is only a minute trace of endogenous CO-formation during life, not enough to cause confusion and not detectable by ordinary methods of analysis. Small hemorrhages due to hypoxia are commonly encountered at autopsy, though there are no specific microscopic findings. Aside from visceral congestion, petechial hemorrhages and the pink to cherry-red coloration of the body, viscera and muscles, the gross and microscopic examinations of an individual who has died of acute CO poisoning are negative. Unless looked for specifically, CO as a cause of death can be overlooked.

EFFECTS OF LOW CONCENTRATIONS ON BEHAVIOR AND FUNCTION

There is a correlation between acute symptoms and the percentage of COHb, but there is also some information regarding the effect of low concentrations of CO on the specialized functions of the nervous system. Individuals exposed for short periods to atmospheric CO

concentrations below 0.001 per cent (100 ppm) show a variety of measurable changes in performance, in the absence of symptoms and complaints. There is a significant rise in the light-sensitivity threshold, but increasing the illumination can circumvent this effect.[24] Flicker fusion frequency[25] and the performance of various psychomotor tasks[26] are altered by COHb concentrations in the 2 to 5 per cent range—a blood-saturation level that is common in smokers. Healthy university students exposed for 90 minutes to CO concentrations as low as 0.005 per cent (50 ppm) showed diminution of their ability to judge time intervals. Also their time discrimination and the precision of their mechanical judgment were altered.[27] When they were subjected to concentrations above 0.005 per cent, the time for these alterations in function was abbreviated; however the real significance of this experiment is that 50 ppm of ambient CO is within the range of exposure accepted as tolerable in industry.[16]

Chronic exposure to low atmospheric concentrations of CO or to intermittent CO fumes can manifest itself in a variety of symptoms, or as apparently primary psychiatric or neurologic disease.[28, 29] The commoner symptoms of chronic CO poisoning include anorexia, nausea, apathy, fatigability, headache, dizziness, insomnia, personality disturbances and memory defects. Other symptoms sometimes present are palpitation, increased sweating, diminished tolerance to alcohol and reduction in libido. Neurologic signs that have been described include ataxic gait, alterations in pain perception, dysdiadochokinesia, nystagmus, tremors, twitching, aphasia, anisocoria, anosmia, facial and glossopharyngeal palsies and hemiplegia.

From the above statements it is obvious that exposure to low amounts of CO, either acutely or over a period of time, may constitute a significant factor in accidents. There are conflicting reports regarding the importance of CO concentrations in causing fatal automobile accidents. However minor degrees of hypoxia associated with low percentages of CO in the blood lead to functional disturbances and compromise coordination. These predispose to accidents, producing results as lethal as those of very high CO concentrations. The roles of CO in contributing to or causing accidents, both as a result of exhaust leakage into a car and from cigarette smoking, are worthy subjects for additional investigation.

CO POISONING AND BRAIN DAMAGE

It is well known that the organ most sensitive to an oxygen deficit is the brain, since it consumes a larger portion of oxygen than any of the other organs. In fact, according to McIlwain, the adult brain consumes almost a quarter of the oxygen inhaled, although it performs no obvious mechanical, osmotic or chemical work.[30] In the nursing infant and in the child up to the age of four years cerebral respiration accounts for half the oxygen consumed by the resting body. In cases of severe acute CO poisoning, symptoms referable to the central nervous system may not be immediately apparent, and complications delayed up to 30 days have been reported.[31] In an excellent report of four cases of acute CO poisoning, Garland and Pearce found that the severity of neurologic complications was unpredictable, and not necessarily proportional to the duration of exposure.[32] Two of their patients were discharged apparently well after five days of hospitalization, only to be readmitted within 48 hours with acute relapses. There was no correlation between the severity of the neuropsychiatric signs when they were hospitalized and their ultimate recovery. This diphasic evolution of severe acute CO poisoning—the initial coma with apparent recovery, followed by relapse—usually follows acute exposure to relatively high atmospheric concentrations of CO. The reappearance of stupor, progressive cachexia, delirium, confusion, temporospatial disorientation and delayed death are not fully explained. They may be related to edema of the brain, to circulatory disorders of a local or general nature, or perhaps to histotoxic action. Each of these can be active at a different time and in a different degree, thus accounting for the polymorphism of the clinical evolution and the anatomicopathologic picture. These facts should put to rest for all time the erroneous axiom: "If CO does not kill, it does not harm."

CO AND HEART FUNCTION

A variety of electrocardiographic aberrations have been observed following CO poisoning, but typically there is a low-voltage pattern.[33] When cardiac function is normal, there is a margin of safety, even though the CO intoxication has

been of long duration. Apparently, recovery is rapid following the restoration of oxygen, and there is a reversion to a "normal" electrocardiogram. There is no specific information about the effect of a mild CO exposure upon myocardial infarction, but epidemiologic studies of cigarette smokers indicate that the death rate from coronary heart disease is considerably higher for smokers than for non-smokers.[34] A subject with any degree of coronary arteriosclerosis may well be placed in a precarious situation when exposed to modest concentrations of CO. The heart is called upon to increase its work to provide oxygen to peripheral tissues when its own supply has been reduced. The heart is capable of extracting more oxygen per milliliter of blood than any of the other vital organs. The requirement at rest is approximately 30 ml. each minute, and the average coronary artery blood flow is about 0.25 L./min. in the normal subject having 15 Gm./100 ml. hemoglobin. Increasing the cardiac output causes more blood to become available for oxygen extraction. An anemic person cannot meet the basal oxygen demands of his myocardium by increasing his efficiency of oxygen extraction. Therefore if he is to survive, his coronary flow must be increased. His heart, doubly embarrassed by anemia and coronary insufficiency, is extremely vulnerable to even minor degrees of CO-induced hypoxia. Excitement, which is common during or following hypoxia, increases the oxygen consumption of the heart, further aggravating the coronary insufficiency. In conditions such as mitral-valve disease or cor pulmonale, hypoxia and excitement can readily precipitate right ventricular failure also.

CO AND PREGNANCY

There is no question that the pregnant female is more susceptible to CO intoxication because her oxygen consumption is increased by about 15 to 25 per cent, and because iron-deficiency anemia is a frequent accompaniment of pregnancy. These factors tend to decrease hypoxia tolerance. The association between maternal CO intoxication and fetal death is not entirely clear. Because of the affinity of hemoglobin for CO, one would not expect to find significant levels of CO in fetal blood following the mother's acute exposure to CO. This has usually been the case in the reported instances of mothers and unborn infants' dying of CO poisoning. However there is some diffusion across the placental membrane when the mother is exposed to sublethal levels of CO for extended periods of time. The saturation of fetal hemoglobin with CO lags significantly behind the saturation of the mother's hemoglobin, but an equilibrium is approached after a time. Chronic CO intoxication has been suggested as a cause of intrauterine fetal death and abortion, but there has been no convincing evidence presented to support such a relationship. On the other hand, mothers who smoke during pregnancy are significantly more likely to have abnormal deliveries and to bear smaller babies than do mothers who have not smoked.[35, 36] The roles of CO in infant birth weights and in abnormal births have not been defined, for although CO may be implicated, nicotine and other components of cigarette smoke, or other as yet unidentified factors may be responsible.

DETECTION OF CO IN BLOOD

Blood-CO levels are expressed in per cent of saturation—the percentage of the hemoglobin combined with CO in the form of carboxyhemoglobin (COHb). Rapid identification of levels in excess of 20 per cent COHb is done by diluting a small amount of whole blood with distilled water and adding NaOH. The volumes are not critical, but one drop of blood in 15 ml. of water, or 0.5 ml. of blood in 100 ml. of water might be suggested. A light pink color develops and persists for 30 seconds or more when 20 per cent NaOH is added. A control sample of blood containing no COHb should be run at the same time. Upon the addition of the NaOH, the control sample will immediately become straw-colored. This test is quite specific in adults, but it does not detect COHb levels below 20-25 per cent. Fetal hemoglobin (hemoglobin F) resists alkali denaturization and may give a false positive. Therefore this test is useless in detecting COHb in infants during the first few months of life.

More sophisticated methods are required to detect small concentrations of COHb, and to confirm the screening test. Microdiffusion with palladium chloride and gas chromatography are commonly-employed methods. The most accurate means of determining CO is gas-solid chromatography,[37] and putrefaction does not

interfere with the determination of CO levels when this method is used.[38]

TREATMENT OF CO POISONING

The treatment of CO poisoning is directed toward shortening the period of hypoxia by hastening elimination of the gas. The dissociation of COHb follows the same laws as the dissociation of oxyhemoglobin, except that the dissociation curve of COHb is at a much lower partial pressure (0.12 mm. Hg) than oxygen (30 mm. Hg). Dissociation can be accomplished by increasing the pulmonary ventilation, increasing the circulation rate of the blood, or raising the partial pressure of oxygen in the alveoli. The last of these is the clinically applicable method of treatment.

The half-time of CO excretion for subjects breathing air is in the range of 1½ to 4 hours,[39] and one can hasten elimination considerably by administering pure oxygen. The administration of 100 per cent oxygen brings about almost immediate improvement in visual function, as has been shown by exposing volunteers to low concentrations of CO and then giving them oxygen therapy.[40] Giving this treatment in a hyperbaric chamber accelerates the elimination of CO from the blood,[41] but hyperbaric chambers are not usually available. One hundred per cent oxygen and complete rest are the treatment customarily used.

SUMMARY AND SUGGESTIONS

1. Carbon monoxide is the commonest air pollutant in the United States, and the atmospheric concentrations of it are spiraling. It constitutes a health problem of increasing significance to the general public and the medical profession. Physicians individually and through their medical societies are in a position to encourage the abatement of this hazard.

2. Practicing physicians should be increasingly aware of the danger of CO intoxication to their individual patients. The insidious effect of CO in producing or accelerating chronic ailments must be appreciated, and the increased susceptibility that may be imposed by pregnancy, altitude, alcohol or drugs, anemia, or reduced cardiac and pulmonary function kept in mind.

3. All carbon monoxide poisonings must be vigorously treated with 100 per cent oxygen—under hyperbaric conditions where possible.

4. The sequelae of acute CO intoxication must be acknowledged when neurologic complications follow apparently complete recovery from CO poisoning. Otherwise victims who survive CO hypoxia and later become physically disabled or incapacitated may fail to get compensation for their disability.

5. Physicians examining persons who are alleged to have been drunken drivers should consider the alternative possibility of CO intoxication. The presence of CO in the interior of a car is sometimes used as a defense against the charge of driving under the influence of alcohol. The effects of alcohol are aggravated by the effects of CO, for both influence the human mind and impair muscular coordination and control.

6. Medical examiners and pathologists must continue to keep CO poisoning in mind when persons have been found dead for no apparent reason. When autopsies are performed in connection with fatal automobile accidents, a test for COHb should be made.

7. It is suggested that there should be periodic inspections of motor vehicles, with particular emphasis on the detection of faulty mufflers and broken manifolds. The operation of automobiles producing high volumes of CO and other pollutants should be prohibited.

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Two-Day Course in Dialysis Technics for Physicians

On December 10 and 11 (Wednesday and Thursday) in Iowa City, the Renal Hypertension-Electrolyte Division of the U. of I. Department of Medicine will offer physicians a two day course in dialysis technics and the problems of patients with end-stage kidney disease. Brief but comprehensive reviews will be presented of the principles involved in dialysis, equipment will be demonstrated, and extracorporeal dialysis with at least two systems and peritoneal dialysis will be demonstrated. Problems frequently encountered will be emphasized.

The roles of the dialysis center, of home dialysis and of renal transplantation will be considered, as will plans which have evolved for the improvement of care for patients with uremia.

The faculty for this two-day course is to consist of Dr. Walter M. Kirkendall, director of the Division; Dr. Richard M. Freeman, director of dialysis services; Dr. George Theil; Dr. George Kaloyanides; Dr. Gerald DiBona; Dr. Annette Fitz; Dr. Maher Azer; and Dr. John McBride. Dr. Richard Lawton, of the Department of Surgery, Dr. William Bonney, of the Department of Urology, and the nurses of the two dialysis units will be important contributors. Other faculty members of the Department of Medicine and the College of Medicine will present other material.

There will be no charge for the course, but attendance will be limited to 15 physicians—the first who apply! Inquiries and applications should be addressed to Dr. Freeman.

The U. of I. basketball team will play St. Francis of Pennsylvania on December 9 and Duquesne University on December 10, both in Iowa City.

The Modified Rapid-Sequence Urogram as a Screening Test for Renovascular Hypertension

STEVEN H. CORNELL, M.D.
Iowa City

IT HAS BEEN KNOWN for many years that renal ischemia produces anatomic and physiologic changes which can be detected by intravenous urography. The changes may not be apparent on the standard urogram with films taken 5, 10 and 15 minutes after injection of contrast material. Rathe[1] was first to suggest that a film taken 15 seconds after the injection of a large volume of contrast material might reveal a decrease in opacification of the renal parenchyma on the involved side due to a reduction in blood flow. Deyton[2] and Maxwell *et al.*[3] described the rapid-sequence urogram consisting of films taken at 20 or 30 seconds after injection of a large bolus of contrast material, and films taken at one-minute intervals during the first five minutes.

MATERIAL AND METHODS

At the University of Iowa Hospitals a modification of the rapid-sequence urogram has been in use since October, 1966. The studies of 100 patients have been reviewed, and the results have been correlated with the findings on subsequent renal angiography.

The patients were not prepared in any special manner. After the rapid injection of 50 cc. of contrast material through an 18-gauge needle, x-rays were taken at 20, 40 and 60 seconds after the beginning of the injection, and then at 5 and 15 minutes. The intravenous urograms were considered abnormal if any of the following features were present: (1) a difference in the length of the kidneys amounting to 1.5 cm. or more; (2) a difference in the opacification of the kidneys shown on the 20-, 40- and 60-second films; (3) a delicate "spidery appearing" collecting system; (4) delay in visualization of the calyces on one side as compared with the other; (5) irregularity of the renal contour; (6) increased concentration of contrast material in the pelvis and calyces on the 5- or 15-minute films; (7) nonvisualization of the renal collecting system; (8) clubbing or irregularity of the calyces; or (9) notching of the ureter.

In many patients several of these findings were present. The frequency with which they were encountered is shown in Table 1.

The renal arteriograms were reviewed independently and were considered positive under the following circumstances: (1) if there was occlusion or a greater than 50 per cent stenosis of a renal artery; or (2) if a kidney was small and had the grossly irregular contour that is characteristic of scarring from chronic inflammatory disease.

TABLE 1

POSITIVE RAPID-SEQUENCE UROGRAMS (36)

	Patients
1.5 cm. or greater difference in renal size	30
Early nephrogram difference	18
Spidery collecting system	10
Difference in calyceal appearance	9
Irregular renal contour	8
Hyperconcentration	6
Nonvisualization of collecting system	5
Clubbing of calyces	3
Ureteral notching	2

Dr. Cornell is an associate professor of radiology at the U. of I. College of Medicine.

The arteriogram was interpreted as negative if there was no abnormality or if there was a less than 50 per cent narrowing of a renal artery. In two cases the only findings were bilateral irregularity and tortuosity of the small intrarenal branches, and these also were considered negative findings for the purposes of this study. The angiographic findings are summarized in Table 2.

RESULTS

The rapid-sequence urograms were correlated with the renal arteriograms, and the results are shown in Tables 3 and 4. Thirty-six patients had positive urograms, and 28 (78 per cent) of these also had positive arteriograms. Eight (22 per cent) of the urograms were false-positive when correlated with the arteriograms. Seven of these had been considered positive because of differences in renal length of 1.5 cm. or more, and in four of these same cases there had been differences in the early opacification of the kidneys.

There were 64 negative urograms, and in 60 (94 per cent) of the 64 cases the renal arteriograms were also negative. Four patients (6 per cent) had a positive arteriogram. The records of those four patients who had a false-negative urogram were studied with respect to the results of the radioisotope renogram, the split renal-function test and the renal-vein renin measurement. The results listed in Table 5 show that two of the patients had a positive split renal-function test, and one had a positive renogram. The fourth patient may not have been a true false-negative case.

DISCUSSION

The results of this study compare favorably with those obtained in previously reported

TABLE 2

RENAL ARTERIOGRAMS (100)

Negative (68)	
No abnormality	48
Less than 50 per cent stenosis of a renal artery	18
Irregular small intrarenal arteries bilaterally	2
Positive (32)	
Greater than 50 per cent stenosis of a renal artery	25
Atrophic irregular kidney	7

TABLE 3

POSITIVE RAPID SEQUENCE UROGRAMS (36)

Positive Renal Arteriograms		
Greater than 50 per cent stenosis of renal artery	21	
Atrophic pyelonephritis	7	
		28 (78%)
Negative Renal Arteriograms		
No abnormality	3	
Less than 50 per cent stenosis of renal artery	3	
Irregular small intrarenal arteries	2	
		8 (22%)

TABLE 4

NEGATIVE RAPID SEQUENCE UROGRAMS (64)

Normal renal arteriogram	45	
Less than 50 per cent stenosis of renal artery	15	
		60 (94%)
Greater than 50 per cent stenosis of renal artery		4 (6%)

TABLE 5

FALSE-NEGATIVE CASES

Patient	Greater Than 50% Stenosis of Renal Artery	Isotope Renogram	Split Function Test	Renal Vein Renin
L.D.	Right	Positive, right	Negative	Negative
V.H.	Right	Negative	Positive, right	Negative
E.P.	Right	Negative	Positive, right	Not done
E.H.	Left	Negative	Not done	Not done

series.[3-5] Using the rapid-sequence urogram, Maxwell and associates found some abnormality in 39 (93 per cent) of 42 patients with renal vascular hypertension. In our experience eliminating the two-, three- and four-minute films did not reduce the percentage of abnormal studies. When we reviewed the urograms, it became apparent that 30-second and one-minute films were just as satisfactory as a series of films taken at 20, 40 and 60 seconds. These films gave a good demonstration of the renal parenchyma, and they revealed differences in the early opacification of the kidneys. Parenchymal opacification occurs when contrast material reaches the glomeruli and tubules, and a reduction in blood flow should cause a lesser opacification on the involved side.

Since most renal arterial lesions are unilateral or considerably more severe on one side than on the other, a comparison of the size and early function of the kidneys is a valuable screening procedure.

The urogram must be interpreted with care. A 1.5 cm. or greater difference in length between the two kidneys is generally thought to warrant further studies. To be considered significant, a difference between early parenchymal opacification should either be unequivocal or be seen on more than one film. Occasionally, examination of the preliminary film of the abdomen taken prior to injection of contrast material shows an *apparent* difference between the density of the kidneys because the liver or some other organ overlies one of them, or because of scoliosis. Such differences must be taken into account.

Because the ischemic kidney produces a smaller volume of urine, its collecting system may be small and delicate, and is said to have a "spidery" appearance. There must be a considerable reduction in urine flow and in renal size before this sign becomes manifest. As with the difference in the early nephrogram, a "spidery" collecting system should be seen on more than one film before it is considered significant. On occasion a peristaltic contraction of the collecting system can simulate "spidering."

No films were taken at two, three and four minutes, but a difference in calyceal appearance was frequently seen on the five-minute films. In several patients there was no visualization of the renal collecting system on the involved side. Irregularity of renal contour should be more than minimal to be considered significant, since perfectly normal kidneys may have fetal lobulations or dromedary humps.

As a result of the increased tubular reabsorption of water, some ischemic kidneys may demonstrate hyperconcentration. There is an increase in the density of the collecting system on the later films because the smaller volume of excreted urine contains a greater concentration of contrast material, which is not reabsorbed by the tubules. The increased density may not be visible if the glomerular filtration has been reduced to such a degree that insufficient contrast material passes into the tubules.[6]

Notching of the ureter is a rare finding that may result from arterial collaterals. It was seen in two of our patients. A number of hypertensive patients will reveal dilatation and irregularity of the renal collecting system secondary to chronic pyelonephritis.

An accurate assessment of the reliability of the urogram as a screening test is difficult to make. Correlation with the results of surgery is satisfactory only in patients whose hypertension has been cured or significantly improved after a period of at least one year. The failure of surgery to improve a patient does not necessarily indicate that the lesion repaired was hemodynamically insignificant. In many instances the remaining kidney is responsible for perpetuating the hypertension.

In this study the urograms have been correlated with the aortograms. Aortograms were considered positive if there was occlusion or a greater than 50 per cent narrowing of a renal artery. In seven patients the kidney was grossly irregular on the nephrogram phase of the aortogram, and a diagnosis of atrophic pyelonephritis could be made with certainty. In most instances this diagnosis had already been made on the basis of the intravenous urogram, but renal-artery stenosis had to be ruled out.

As Eyler[7] has reported, stenosis of the renal artery may occur in a significant number of normotensive individuals. Amplatz[8] showed that there must be at least a 50 per cent narrowing to produce a reduction in the flow

through a stenotic segment. In most instances it is not difficult to determine, from the aortogram, whether or not a lesion is hemodynamically significant. Bookstein[9] has listed the angiographic criteria of hemodynamic significance: (1) If the stenosed lumen has a diameter of 1.5 mm. or less, it is almost always hemodynamically significant. Some stenoses up to 3 mm. may be significant. (2) If the renal arteriogram demonstrates a slower flow of contrast material on one side than on the other, the lesion is hemodynamically significant. (3) The demonstration of collateral channels always indicates renal ischemia. Since only the most severe degrees of stenosis will produce collateral vessels or an appreciable slowing of the flow of contrast material, it was decided to consider a lesion hemodynamically significant if the diameter of the stenosed segment was 50 per cent or less of the diameter of the normal part of the vessel. In some patients—especially those with fibrous dysplasia—the measurement of the stenosed segment is problematic. A few such cases were encountered and were not included.

The results of this study suggest that the modified rapid-sequence urogram is a satisfactory screening test. The false-positives are no great cause for concern since further tests can be done on such patients to exclude a hemodynamically significant lesion. The six per cent incidence of false negatives is believed to be acceptable.

Certain patients should have renal angiography despite a negative intravenous urogram. They include persons who are unusually young or old for essential hypertension; those with a sudden onset of hypertension or a sudden worsening of their disease; patients with flank pain or trauma associated with the onset of hypertension; and those with a bruit in the flank or mid-epigastrium. When a modified rapid-sequence urogram has been carefully performed and interpreted, and when none of the above-listed clinical findings have been noted, the incidence of false-negative studies should be very low.

SUMMARY

The modified rapid-sequence urogram was correlated with the renal arteriogram in 100 hypertensive patients. The urograms were analyzed according to well established criteria. On the arteriograms, renal-artery stenosis of 50 per cent or more was considered hemodynamically significant. There was an incidence of 22 per cent false-positive and 6 per cent false-negative urograms.

The modified rapid-sequence urogram is a satisfactory screening test for renovascular hypertension in the majority of cases. Patients whose clinical findings are strongly suggestive of a renal arterial lesion should undergo renal arteriography in spite of a negative urogram.

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Iowa Thoracic Society Grants and Fellowships, 1970-1971

The Research and Medical Education Committee of the Iowa Thoracic Society will accept applications for medical research grants in the areas of tuberculosis, respiratory physiology and associated fields. Grants are made to non-profit institutions in direct support of a particular investigator for a specific program of research under his direction.

Applications will also be considered for research and advanced clinical training in the field of respiratory diseases. Stipends will vary according to the qualifications and needs of the applicant.

Applications must be received on or before November 3, 1969. Application forms may be secured from the executive director of the Society, 1818 High Street, Des Moines, Iowa 50309.

Macrodactyly

VIRCHEL E. WOOD, M.D.
Iowa City

MACRODACTYLY, OR MEGALODACTYLY as many authors call it,[9, 16] is one of the rarest of congenital malformations of the hand. The term *macrodactyly,* when properly used, refers to increased size of all the structures of a digit.[8] The phalanges, tendons, nerves, blood vessels, fat, fingernails and skin are all enlarged. Usually the metacarpals are not affected. Not every enlarged digit should be termed macrodactyly. In some instances only a few of the constituent tissues are involved. Bunnell[5] reported that neurofibromas have been found in these digits with sufficient frequency to suggest that they may be the cause of the anomaly. In the files of the Orthopedic Department at the University of Iowa we found records of several patients with macrodactyly due to neurofibroma, hemangioma or lymphangioma. These cases are not regarded as true instances of macrodactyly, however, and are not included in this report.

True macrodactyly appears at birth or shortly thereafter, and increases during childhood, but it usually stops at puberty. In an occasional rare case, growth of the involved digit occurs at a faster rate than can be attributed to the normal growth pattern. An overgrowth of fatty tissue occasionally extends into the palm, into the dorsum of the hand and into the forearm.[3]

In 1932 Kanavel[10] said that fewer than 75 cases had been reported in the literature. However in 1967 Barsky[3] reported on a very careful review of the literature of the preceding 140 years, in which he had found only 56 cases that he regarded as genuine instances of macrodactyly. At that time he added eight patients of his own, to make a total of 64 patients reported in the world literature.

We have recently made a detailed study of all the cases of macrodactyly seen over the past 50 years at the University of Iowa. In over 1,000 cases of congenital hand anomalies, our commonest type, syndactylism, has involved 338 patients. We have found only five patients with true macrodactyly. Macrodactyly thus represents less than 0.5 per cent of our cases of congenital hand anomalies.

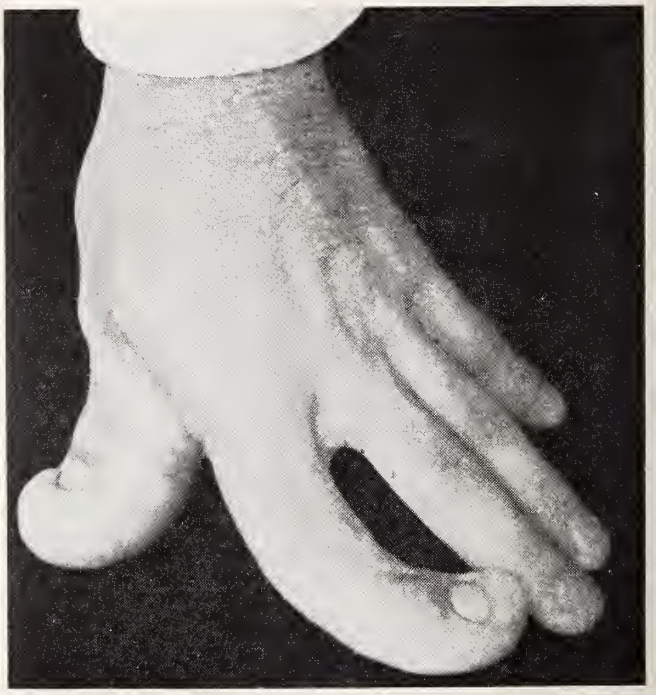


Figure 1A. Dorsal view showing ulnar deviation of the enlarged index finger.



Figure 1B. Palmar view to show the macrodactyly of the thumb and index finger.

Dr. Wood is a fellow in the Division of Hand Surgery of the Department of Orthopedic Surgery at the U. of I. College of Medicine. This study is part of the project titled "A Clinical Research Study of Congenital Hand Anomalies" supported by the Children's Bureau, Department of Health, Education and Welfare.

Case 1. F. L. was born in 1921. Physical examination revealed a markedly enlarged left index finger and thumb (Figures 1A-B). The distal two phalanges of the index finger deviated ulnarly, and rested on the long and ring fingers. He could not flex the proximal interphalangeal joint of the index finger fully. The thumb curved radially, and there was only 25° of motion in the interphalangeal joint (Figure 1B). The thenar eminence showed marked hypertrophy (Figure 1B).

When the patient was 17 years of age, fat was resected from the thumb and an osteotomy was performed on the middle phalanx of the index finger in an attempt to straighten the deviated digit. At six weeks the osteotomy was solid, but the interphalangeal joint remained stiff (Figure 1D). Six weeks later, repeated infections from deeply imbedded edges of the thumb



Figure 1C. X-ray showing enlargement and curvature of the phalanges.



Figure 1D. Postoperative x-ray showing satisfactory straightening of the index after osteotomy of the middle phalanx.

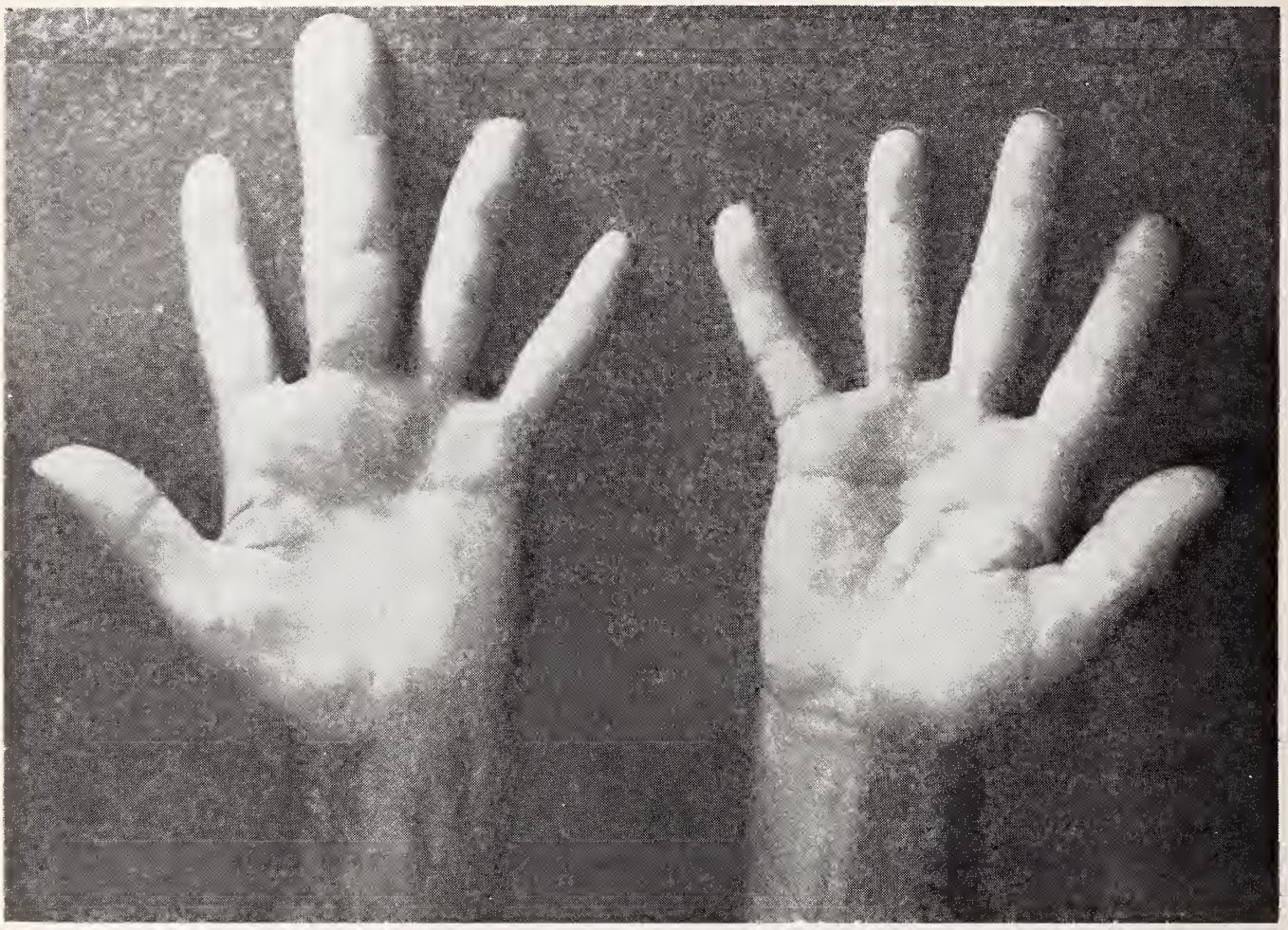


Figure 2A. Macrodactyly of the left long finger.



Figure 2B. Close-up view illustrating the enormous long finger.

nail necessitated removal of the thumb nail edges, together with the associated excess skin.

Five months afterward he again was taken to surgery, and in a plastic operation on the thumb and index finger much of the skin and fat was removed. The results of the surgery were very satisfying to the patient, and the awkward deviation of the digits was much improved. This patient could not be traced for a recent follow-up examination.

Case 2. N. L. was 53 years of age in 1958. He was seen at that time because of bronchogenic carcinoma of the lung. Examination of his left hand revealed an enormously enlarged long finger (Figures 2A-B). The ring finger on the same hand showed some enlargement of the distal and middle phalanges. The patient died shortly thereafter of terminal carcinoma of the lung.

Case 3. B. S. is now seven years of age. His left index finger is enlarged and has a bulbous tip (Figures 3A-B). On recent examination he was found to have a normal range of motion in the index finger, but a slight ulnar deviation of the distal interphalangeal joint is occurring. The remaining fingers do not seem to be growing disproportionately to the rest of the hand or to the opposite fingers.

Case 4. D. L. is 24 years old. At the age of one year, because of massive enlargement of the index and long fingers of her left hand, she underwent amputation of the long finger at the mid-shaft of the proximal phalanx. When

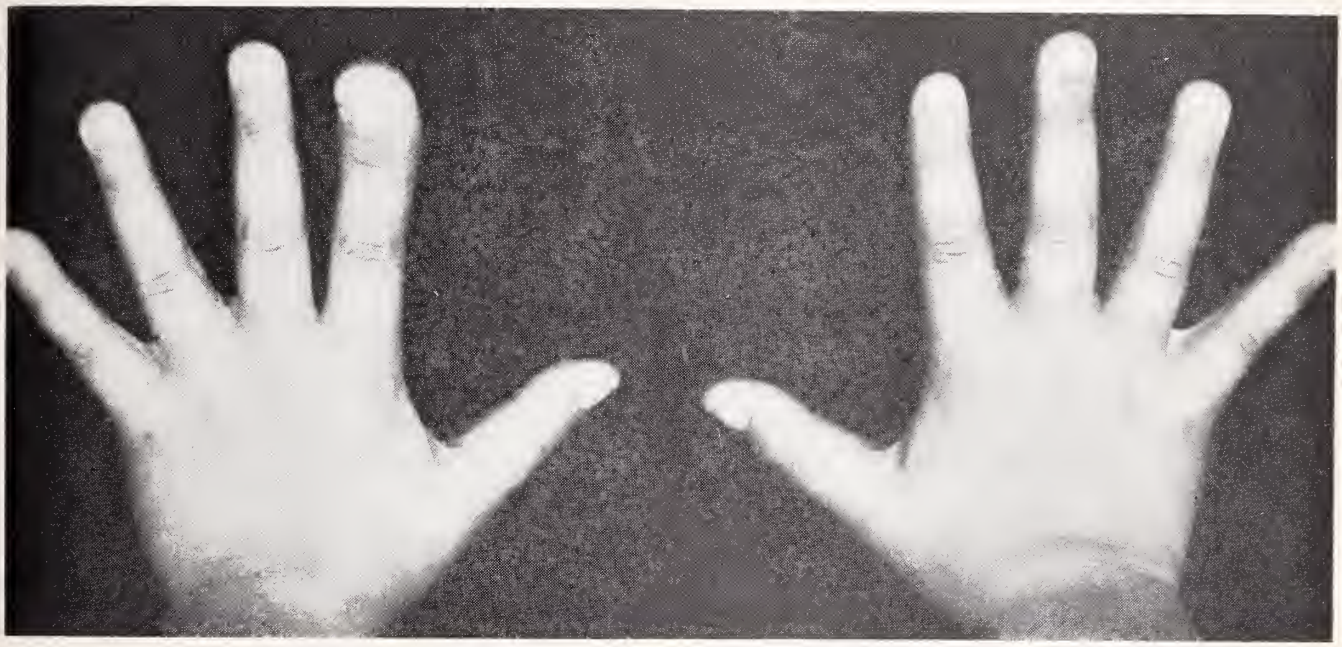


Figure 3A. Dorsal view to show the enlarged index finger.



Figure 3B. Palmar view of the same patient.

seen in our clinic at age 3, she had an index finger that was three times the size of the normal finger in her other hand. She had normal sensation and motion in the enlarged digits. The distal phalanx of the index was larger than the middle phalanx, and the middle was larger than the proximal. We have been unable to trace this patient for our current follow-up study.

Case 5. In 1935, T. W. was seen in our outpatient clinic at the age of 73 because of a hip fracture. Physical examination at that time revealed that his left thumb and index finger were enormous. The thumb was curved outward radially, and the index finger was curved ulnarly over and on top of the ring finger. Further studies are not available, for this patient died shortly thereafter.

DISCUSSION

A. Incidence. In 1967, Barsky[3] published an excellent review of the world literature on macrodactyly. In this paper I add our five cases and refer to the few cases that have been reported in the literature since Barsky published his extensive study.[16, 18, 19] Up to the present, a total of 95 cases of macrodactyly have been reported in the world literature.

In the patients who have been accurately reported, a total of 176 digits have been involved (Table 1). In five patients it was not made clear which digits were involved. By far the commonest site of the anomaly has been the index finger, and the long finger has been involved next most frequently.

B. Etiology. There appear to be no hereditary factors involved, for no history of recurrences in a family group has been reported in the literature, and our cases have failed to show the possibility of a family history. Furthermore, no chromosomal abnormalities have been demonstrated in these patients.[3]

Barsky[3] postulated that during fetal development a disturbance of the growth-limiting factor occurs in the local area, and with the resultant lack of inhibition the part continues growing. This hypothesis would account for the progressive enlargement during childhood years.

In some cases only one side of a digit becomes excessively hypertrophic. Usually the digit tends to deviate toward the unaffected side. There may be partial hypertrophy of a digit limited to the distal end. As patients reach maturity, they gradually lose motion in the digits. The fingers become unsightly, clumsy and essentially useless. Sensation usually remains intact.

I believe that the loss of motion in these digits is due in large part to the patient's extreme self-consciousness about his deformity, and his constant attempts to hide the abnormal and hideous digits. Thus the affected fingers are not used for their normal purposes, and become rigid secondarily.

C. Associated Deformities. Occasionally there is syndactyly of the involved digits, and there have been reports of eight such cases.[3, 4, 13-15]

No other congenital abnormalities have ever been reported in combination with macrodactyly. Thus syndactylism is unique in that there is an 8.3 per cent association between it and macrodactyly. I have personally examined one other patient with associated syndacylism and macrodactyly whose condition has not yet been reported.

D. Clinical Findings. Macrodactyly may occur unilaterally, bilaterally, symmetrically or asymmetrically.

Males and females are unequally affected. There have been 46 males and 34 females, and in seven cases the sex of the patient was not reported.

The right hand was involved in 47 patients, and the left hand in 48. In eight instances handedness was not mentioned. There have been seven bilateral cases.[1, 3, 6, 11, 12, 15, 17] Seventy-nine cases were unilateral, and in nine instances this point was left in doubt.

Multiple-digit involvement is more than three

TABLE 1

MACRODACTYLY
Total digits involved—176

Digit Involved	Number of Fingers
Index	65
Long	53
Thumb	31
Ring	21
Little	6

In five cases the digit involved was not specified.

times as frequent as single-digit involvement; adjacent fingers are usually affected. Sixty-six patients have been reported with multiple-finger involvement, 22 patients with single-digit involvement, and seven patients have been unspecified. In multiple involvements the most frequent combination consists of the index and long fingers (18 known cases). Sixteen cases of macrodactyly of the thumb and index finger have been recorded, and 12 cases of macrodactyly of the long and ring fingers. These represent the most frequent multiple-digit combinations.

When there is unilateral involvement of one digit only, the index finger is most often affected, followed by the long finger. Involvement of the little finger has been reported in only six cases.[15, 19, 20]

E. Treatment. The treatment of macrodactyly has been far from satisfactory. The majority of patients underwent amputation of part or all of the involved digit until Bunnell[5] suggested defatting procedures and epiphyseal destruction. Clifford[7] reported a case in 1959 in which he drilled through the epiphyseal plates to stop growth. Jones[9] made a similar report in 1963. Technically we have found it extremely frustrating and difficult to destroy the epiphyseal plates of the small bones of the phalanges properly, and to achieve satisfactory epiphyseal closure.

Barsky[2] has described a procedure in which an incision is placed across the dorsum of the finger, and the distal half of the middle phalanx and the proximal half of the distal phalanx are amputated through it. The flexor tendon is shortened, at the same time, by suturing. The surplus skin on the palmar side is excised later, as a secondary procedure.

Severe angulation or deviation of a digit is best corrected by an osteotomy using a closing wedge technique (Figures 1C and D).

In the treatment of macrodactyly of the digits, there are two problems which must be taken into consideration. When hypertrophy of a digit is not highly marked in an infant, growth of the digit should be inhibited. Treatment should be started early in infancy by attempting to gain proportional lengths of the affected and the non-affected digits. Initially, surgery should consist of multiple defatting procedures on one side of a digit at a time. Tsuge[19] describes a defatting procedure with complete separation of the digital nerve branches. He dissects all the branches of the digital nerve in conjunction with dissection of the adipose tissue. He carefully preserves the digital nerve trunk itself after completely excising all its branches. This Japanese author reports that his method of stripping the nerve inhibits or checks growth in the defatted digits.

When the involved digits have reached a length that it is thought will be approximately normal for the patient as an adult, the three phalangeal epiphyses should be destroyed by excision. As a rough guide to the timing, one can use the sizes of the patient's parent's fingers. Epiphyseal destruction controls only the growth of the longitudinal base; the circumferential bone growth can be expected to continue, and to require further correction. Longitudinal excisional osteotomies of approximately one-third of each phalanx on each side have been done by Thorne, Posch and Mladich.[18] Even though great care is taken to preserve the articular surfaces of the phalanx, the joint motion inevitably decreases following surgery.

The second problem concerns extreme macrodactyly that has occurred in a child or an adult. When this extreme stage has been reached, the basic approach probably is surgical ablation, if the involved digit is relatively unimportant. If a vital digit must be saved, multiple excisions of soft and bone tissue should be attempted. However when the digit becomes unsightly, or when previous operations have failed to reduce it to an acceptable size, amputation is the treatment of choice. The digit and metacarpal should be amputated, and the gap in the hand should then be closed by lateral transfer of an adjacent metacarpal ray into its place.

SUMMARY

Macrodactyly, a rare congenital anomaly, has been discussed. The world literature regarding it has been summarized, and five new cases have been reported. Statistics concerning this deformity have been presented, together with a proposed outline of treatment.

ACKNOWLEDGEMENT

I wish to thank Dr. Adrian E. Flatt for his time and assistance, and for the opportunity to do this investigation. My thanks also go to Mrs. Cheryl Heltne and Mrs. Joyce Roller for their clerical assistance.

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Granular Cell Myoblastoma in the Thyroid Gland

Report of a Case

BONG SIK HAN, M.D.,
JAMES M. CATERINE, M.D., and
ROY W. OVERTON, M.D.
Des Moines

GRANULAR CELL MYOBLASTOMA is an uncommon benign tumor most often occurring in the oral cavity. The tongue, lips and floor of the mouth are sites frequently affected. The tumor has no special predilection for either sex, and it has been found in persons ranging from infancy to 70 years of age. However individuals in the fourth and fifth decades are most frequently affected.

The extraoral sites that are frequently affected by this tumor include the skin, the breasts and the gastrointestinal tract. To date, apparently, no cases of this tumor have been reported in the thyroid gland.

HISTORY

A 47-year-old Negro male was admitted to Mercy Hospital, Des Moines, on April 10, 1968, with the chief complaints of cough and tightness of the chest of two weeks' duration. A review of systems was non-contributory. The patient's history revealed that he had been hospitalized on two occasions (1958 and 1966), and that on both of those occasions the diagnosis was pneumonia.

PHYSICAL EXAMINATION

The physical examination revealed a well-developed and well-nourished Negro male having no significant abnormalities other than a diffusely enlarged right lobe of the thyroid gland. Neither tenderness nor nodularity was noted in the affected right lobe.



Figure 1. The right lobe of the thyroid gland (left side) attached to a well-encapsulated granular-cell myoblastoma measuring 3 x 2 x 2 cm



Figure 2. Cut section of the surgical specimen, revealing the whitish, firm nodule and the adjacent thyroid.

LABORATORY AND X-RAY FINDINGS

The laboratory findings include a hemoglobin of 13.3 Gm./100 ml., a hematocrit of 40 per cent, a red blood cell count of 4,820,000 cu. mm., and a white blood cell count of 4,900/cu. mm., with a differential of 54 per cent neutrophils and 46 per cent lymphocytes. The urinalysis was normal except for a trace of albumin. The fasting blood sugar and blood urea nitrogen were normal. The protein-bound iodine, the thyroxine-by-column, the T_3 *in vitro* uptake test and the I^{131}-uptake were 6.6 mcg. 100 cc., 9.6 mcg./100 cc., 31 per cent and 14 per cent, respectively. All these values were considered normal. The radioactive scan of the thyroid gland showed a marked enlargement and a deficient uptake of radioactive iodine. The findings were described as "indicative of a nodular goiter."

OPERATIVE FINDINGS

On April 27, 1968, a right thyroid lobectomy was performed, with excision of a retrotracheal mass. A large mass appeared to project from the posterior aspect of the right lobe of the thyroid. Careful section revealed a whitish mass that extended deep into the neck and, in fact. encircled the trachea. The mass extended cephalad between the superior pole of the right lobe of the thyroid and the trachea. After the right recurrent laryngeal nerve had been identified and was seen to pass over the mass, approximately 60 per cent of the mass was resected. A portion of it posterior and to the left of the trachea was left behind, since it was technically impossible to remove it without sacrificing a portion of the trachea. The right lobe of the thyroid was transected at the isthmus, and it was removed *en bloc* with the described mass attached to it. When this specimen was examined by the pathologist, he diagnosed it as a benign granular-cell myoblastoma.

PATHOLOGIC FINDINGS

The surgical specimen consisted of the right lobe of the thyroid gland, measuring 5 x 2.5 x 2 cm., and an attached well-encapsulated, whitish, firm mass measuring 3.5 x 2 x 2 cm. (Figures 1 and 2). Microscopic examination of the tumor revealed that it consisted of interlacing bundles of so-called myoblastoma cells. They contained granular cytoplasm and had centrally-located, round, regular nuclei. The tumor cells invaded the thyroid tissue, and

acini which appeared fairly normal were left scattered among the tumor cells. The individual tumor cells were uniform in size and shape, and lacked anaplasia (Figures 3, 4 and 5). The capsule of the tumor was composed of dense, fibrous tissue, but it contained several nests of thyroid acini. Microscopically the diagnosis was granular-cell myoblastoma, probably arising in the perithyroidal tissues.

The patient was discharged from the hospital in good condition on April 16, 1968.

DISCUSSION

On the basis of histologic and biochemical studies, granular-cell myoblastomas are considered genuine neoplasms and are not reactive granulomas. Theories explaining the origin of the granular-cell myoblastoma are multiple. Some of the more widely held theories are as follows.

Fust and Custer, in 1949, considered that the nonlingual origin of granular-cell myoblastoma was evidence in favor of a neural origin. They said that the morphology of the cellular elements was characteristic of neurogenic tissues, especially Schwann cells.[1] Ratzenhofer supported this theory because of the morphologic similarity between other neurogenic tumors and this one.[2] Besides, he thought that the granules were chemically related to the granules of Schwann cells.

The fibroblastic theory was advanced in 1950 by Pearse.[3] He described tumors of this sort as true neoplasms derived from fibroblasts, in which a lipid substance has been deposited. The deposition presumably was secondary to traumatic irritation. He identified lipid on the basis of a histochemical analysis of the tumor. He also suggested the term *granular-cell fibroblastoma* in place of *granular-cell myoblastoma*.

The muscle-cell theory was proposed in 1926 by Abrikossoff.[4] Specifically, he believed that the myoblastomas were of striated-muscle origin, and thought they generally occurred in muscle after trauma or chronic inflammation. The appearance of the tumors in areas where no striated muscle was obvious could be explained, he said, on the basis of congenitally aberrant striated muscle.

Leroux and Delarue speculated that the storage cell, or histiocytic cell, gave rise to a metabolic failure affecting several unknown factors.[5] These authors doubted the neoplastic nature of the myoblastoma, and preferred to call it a "granular-cell tumor." On the basis of chemical analysis of the granules in the cytoplasm of these tumors, Pearse indicated that the granules are composed of lipid, protein and certain reactive groups, and that in addition these granules are identical in composition with many of the granules found in normal fibroblasts.[3]

For the diagnosis of myoblastomas, certain criteria have been outlined. Clinically, the superficially located granular-cell myoblastomas are incidentally discovered by the patient himself or by his physician. They are found when an area of enlargement becomes prominent. Deep-seated tumors are difficult to recognize unless other phenomena such as pressure symptoms appear. When the mass has been noted, a biopsy is performed, and the diagnosis is made histologically. Additional symptoms may be produced by metastases, when the lesions are malignant granular-cell myoblasto-

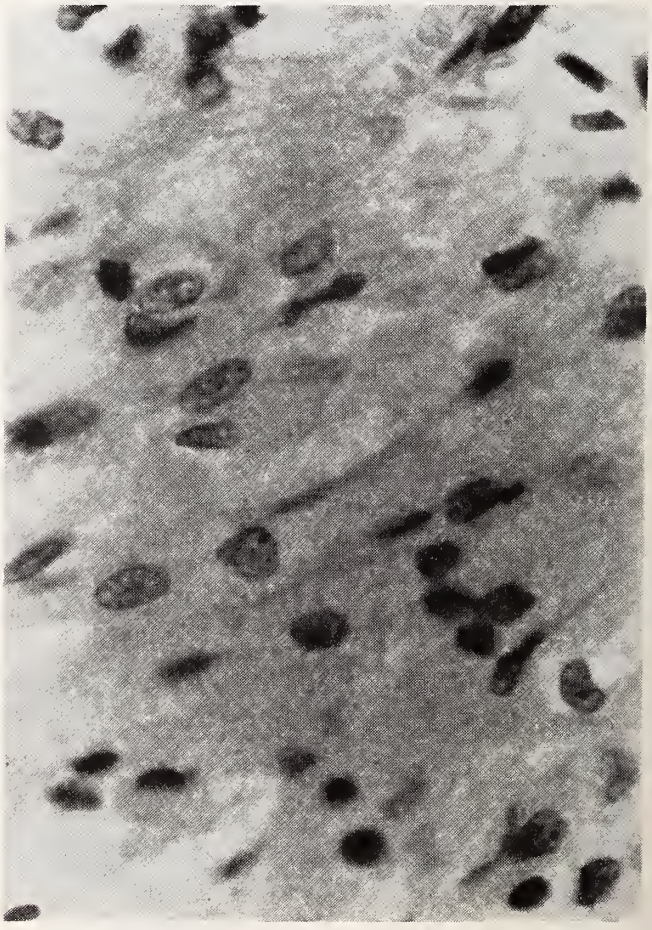


Figure 3. Histologic section of tumor showing spindle-shaped, so-called myoblastoma cells. The cytoplasm contains numerous fine granular particles. (Hemolysin and eosin stain; magnification 450x.)

mas. From the laboratory standpoint, no specific findings have proved helpful. Pathologically, the differentiation between benign and malignant granular-cell myoblastomas is based upon the histologic features of the tumor and on the presence or absence of metastases. The benign granular-cell myoblastomas are composed of uniform so-called myoblastoma cells with centrally-placed round nuclei and swollen granular cytoplasm. Metastasis to adjacent tissues or to lymph nodes does not occur.

Malignant granular-cell myoblastomas lack cellular uniformity, they have irregularly dark-stained nuclei, mitotic activity is frequent, and there is invasion of adjacent tissues. There may be metastasis to the regional lymph nodes. Malignant granular-cell myoblastomas are rare. Approximately 40 such cases were reported by Busanny-Caspri and Hammar, but after review, only 13 of those cases could be considered malignant. In 1955 Gamboa reported 10 cases of malignant granular-cell myoblastoma, based upon histologic analysis of previously-reported cases. At that time, he stated, the malignant granular-cell myoblastoma was almost invariably fatal.

TREATMENT

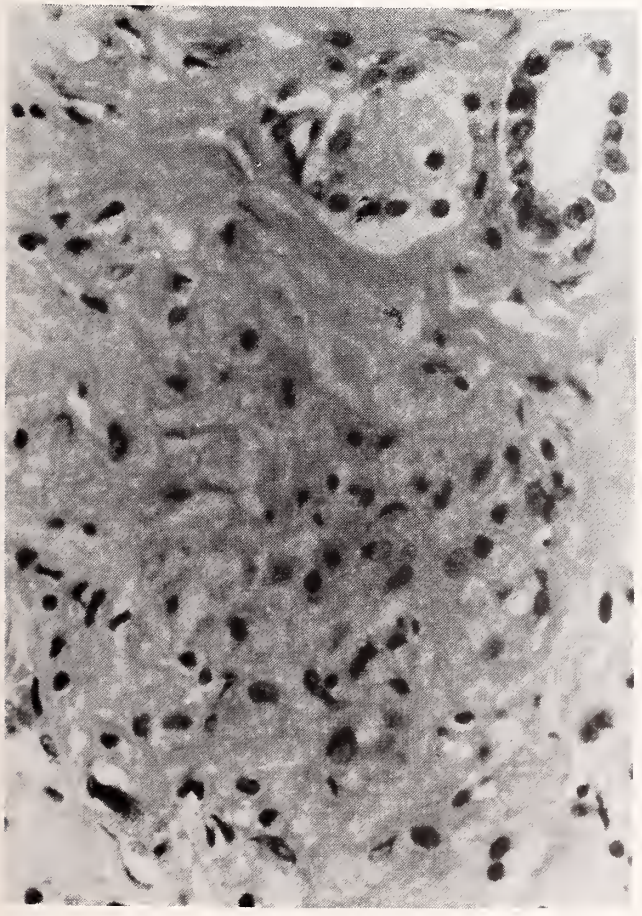
The treatment of choice for benign granular-cell myoblastoma is adequate excision. If malignancy is suspected following microscopic study, a wide excision of the primary lesion and dissection of the regional lymph nodes should be performed.

SUMMARY

In summary, a case of granular-cell myoblastoma in the thyroid gland has been presented. The histologic pattern was characteristic and benign. The exact origin was unclear, but was thought to be in the perithyroid tissues, i.e., the capsule of the thyroid gland. A brief review of the significant aspects of the disease has been included.

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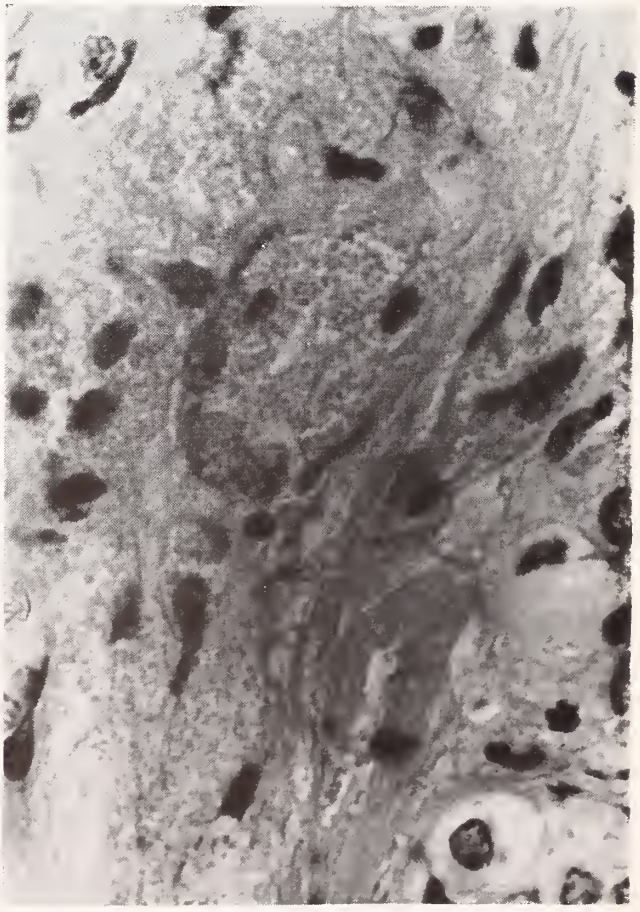


Figure 4 and 5. Tumoral cells invading thyroid tissue in which well preserved and partially-distorted glandular acini are visible. (H&E stain; 100x and 450x magnifications, respectively.)

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Annual Meeting of the Omaha Mid-West Clinical Society November 3-5

The annual meeting of the Omaha Mid-West Clinical Society will be held at the Fontanelle Hotel and three Omaha hospitals on November 3-5. On the first of those days, Monday, the topics will include painful hip, unusual pulmonary diseases, the skin in obstetrics and gynecology, acute and chronic lung disease, arthritis, pediatric emergencies, malignancies of the head and neck, hearing loss in children, and others. The guest speakers will include Dr. Warren Cole, of Chicago. The Tuesday program features discussions of septic-abortion endotoxin shock, recent advances in immunization and human factors in aviation accidents. On Wednesday the topics are to include tumors of the parotid gland, dynamic radioisotopic studies in renal disease, and ophthalmologic and renal changes in the diabetic patient. At the noon luncheon one of the participants in the recently completed snowmobile trip to the north pole will be the guest speaker.

A style show, some home showings, and other attractions are being planned for physicians' wives, and they will attend the luncheon at which the polar explorer speaks. The hospital clinics will be held on the afternoons of the successive days at St. Joseph's, the U. of N. Respiratory Clinic, and at Nebraska Methodist. There will be separate banquet meetings for U. of N. and Creighton University medical alumni.

For further information, address Mrs. Mary E. Pilloud, executive secretary, Omaha Mid-West Clinical Society, 1040 Medical Arts Building, Omaha 68102. The scientific parts of the program are to carry AAGP credit.

AMA's Clinical Convention November 30-December 3 in Denver

The American Medical Association will hold its 23rd Clinical Convention in Denver, November 30 through December 3.

Scientific sessions are planned mornings and afternoons, Monday through Wednesday, covering the latest developments in a variety of areas including heart disease, cancer, and pulmonary problems.

Roundtable sessions, previously conducted as breakfast gatherings, will be held over lunch at this year's Clinical Convention. Topics include the battered child, problems related to suicide, and human sexuality.

About 25 medical motion pictures will be shown, including several premiere showings.

The entire program will be carried in the issue of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION dated October 20.

AMA's House of Delegates will meet in the Denver Hilton Hotel. Other sessions of the convention will be held in Denver's Convention Center Complex.

Some 3,000 physicians are expected to attend the four-day convention. Guests, medical students, registered nurses and other members of allied health professions, and industrial exhibitors are expected to bring the total to about 7,000.

Closed-circuit television programming is planned for the major hotels where those attending the convention will be staying.

Annual Meeting of Pediatricians in Chicago

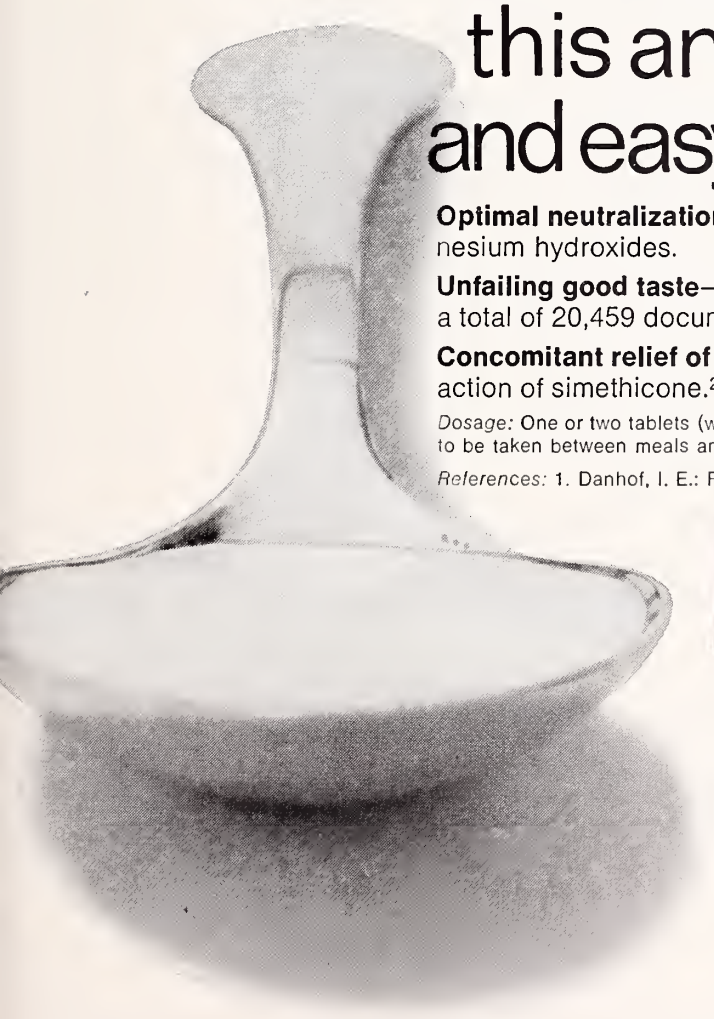
Significant challenges confronting today's pediatrician including: key issues in infant mortality, current developments in objective means of diagnosis and therapy in allergic disorders, child care —a national challenge, new considerations in the diagnosis and management of neonatal jaundice, and multiphasic screening for pediatric patients will be among the subjects presented during the 38th annual meeting of the American Academy of Pediatrics at the Palmer House, in Chicago, October 18-23.

Other areas to be examined during the annual session will include: sources of adolescent unrest, principles and problems of drug studies in infants and children, and the current state of physical fitness of American youth.

Several outstanding scientific exhibits will be featured at the AAP meeting. These include: improved fetal and infant environment through childbirth education; design and operation of an infant-transport system; a pediatrician's guide to the prescription of restraining devices for children; and the computerized medical record as coordinator of health care. Timely scientific subjects will be presented during meetings of the Sections of Allergy, Anesthesiology, Cardiology, Child Development, Diseases of the Chest, Military Pediatrics, Pediatric Pharmacology, Public Health Pediatrics, and Surgery. In addition, there will be 11 seminars, and 23 round table discussions presented during the meeting.

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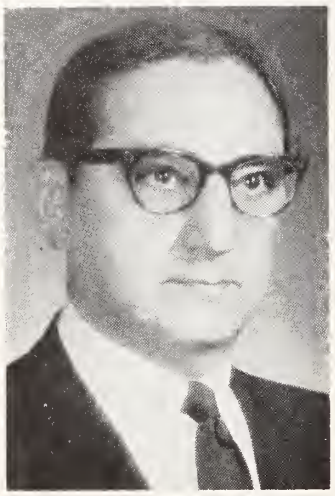
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President's Page



What's the most pressing problem facing Iowa in these final days of the decade? Ask 10 persons this broad question, and you're likely to get 10 different replies.

Pose the same question to 10 people interested in health-care delivery, and the odds are better than even you'll hear "manpower supply" as the recurring refrain. Therein lies a truly knotty problem, compounded by a great many factors, e.g., public demand, difficulties in training personnel, urbanization patterns, availability of facilities, etc. These and other crucial elements deserve thoughtful attention as tomorrow's health-care delivery system is charted.

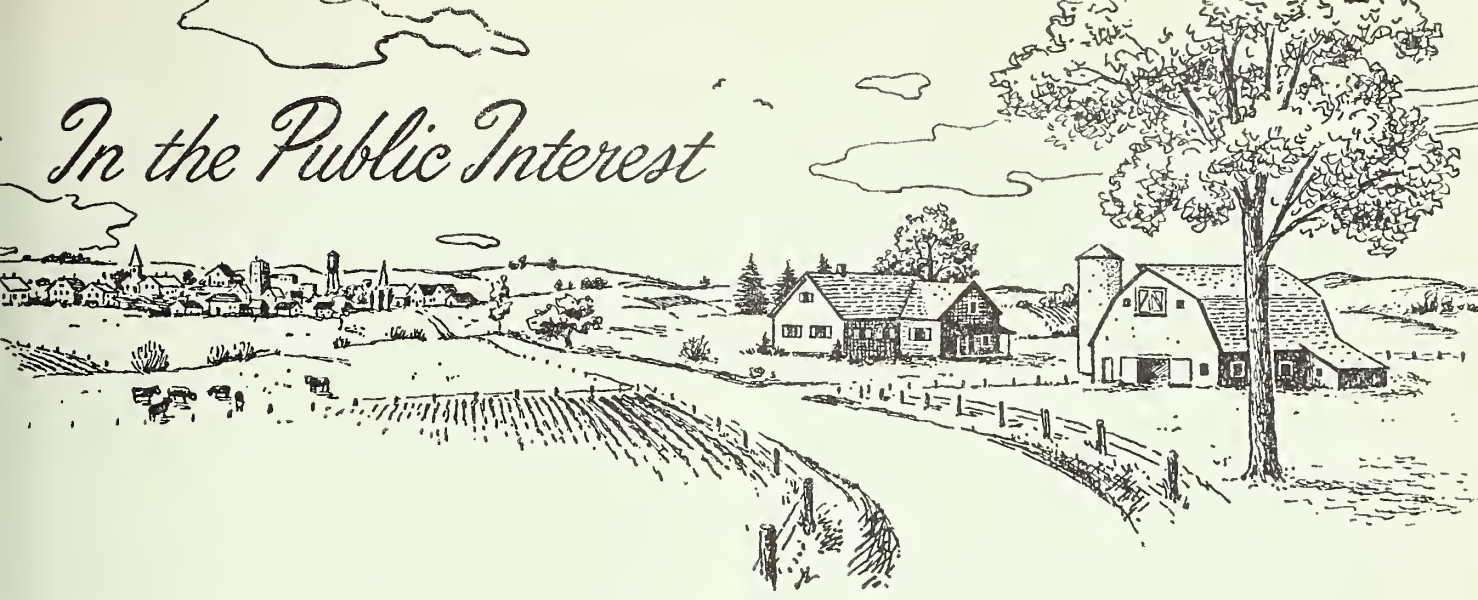
A new series of opportunities for Iowans to delve into this complex situation have been scheduled for this fall. Between October 21 and December 11, a total of 14 regional conferences will occur over the state. The complete list of them can be found on the "green sheet" in this issue of the JOURNAL.

The meetings will have three principal sponsors: the Iowa Medical Society, the University of Iowa College of Medicine, and the Health Planning Council of Iowa. It is hoped that many community leaders outside of the health field, as well as within it, will take part. These sessions are a logical follow-up to the 1968 "for physicians only" series.

Each meeting is certain to succeed in that it will produce some good ideas. But any lasting success will depend upon the leadership that local physicians provide, both before and after. Be sure to encourage capable people to attend the meeting in your area, and then help see to it that the best ideas voiced there are transformed into projects!

Wm M. Kingsley MD

President



A Second Series of

Regional Meetings on Health-Care Distribution in Iowa

A new series of conferences on ways of improving health-care distribution—these are principally for non-physicians, though doctors of medicine should demonstrate their interest by attending them—will be held this fall at 14 locations throughout Iowa. (See the accompanying map and list of dates and meeting places.)

There are three sponsoring organizations: the Iowa Medical Society, the U. of I. College of Medicine and the Health Planning Council of Iowa. However the prime mover, as it was last year, is the IMS Task Force on Medical Manpower.

The meetings to be held within the next few weeks, it is hoped, will help to familiarize civic leaders, legislators, officials of local governments and the heads of health-oriented organizations and service clubs in every county with the pluses and minuses in the various types of health care in their particular area, as compared with the rest of the state and with the nation. It is expected, moreover, that the meetings will suggest projects designed to remedy some of the deficiencies thus identified, and will arouse enthusiasm for getting the projects started.

At each gathering there will be presentations by a panel of speakers: (1) on the economic and population trends in the area; (2) on the status of health care there; (3) on what constitutes a desirable and achievable level of health care for the area; and (4) on the ancillary services such as ambulance, visiting-nurse and homemaker which might be established.

An officer of the IMS, a member of its Task Force on Medical Manpower, or an otherwise prominent doctor of medicine will be the moderator at each meeting, and an M.D. who practices in the immediate vicinity will be a member of the panel.

Most important will be the roles taken by the community leaders and officials, however, for these conferences will provide ample opportunities for two-way communication. Everyone's participation will be welcomed, regardless of whether he or she has questions to ask, criticisms to voice or suggestions to offer.

Each conference is to begin at 4:00 in the afternoon. The first session will consist, for the most part, of presentations of the local health-care situation as it now is. A dutch-treat dinner will follow, during which table-companions no doubt will brainstorm the issues spontaneously, in two-, three- or four-part conversations. Then at the after-dinner session, audience participation should be spirited indeed.

THE IMS TASK FORCE ON MEDICAL MANPOWER LEADS THE WAY IN THIS TYPE OF WORK

Though it is relatively new, the IMS Task Force on Medical Manpower conducts, supervises or cooperates in a great number of activities designed to focus interest upon, and to improve, health-care distribution.

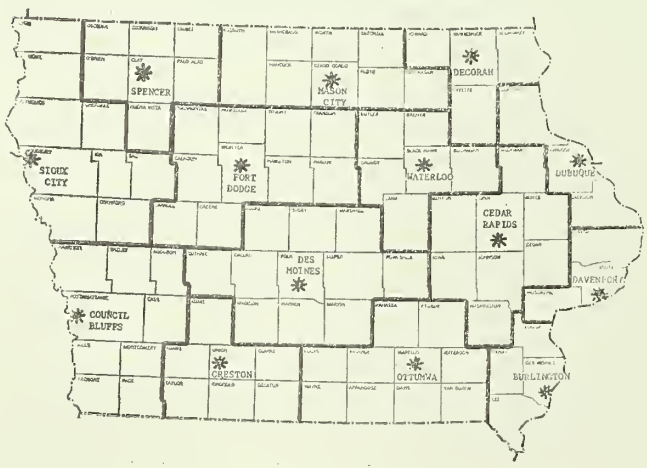
The many projects with which the Task Force is assisting deserve enumeration. In groups of two or three, its member physicians have been meeting with medical students in Iowa City, a few at a time, to call their attention to the state's need for more doctors, and to outline the pleasures and satisfactions that they can expect to find if they elect to practice medicine in Iowa. Also, the Task Force has held a large meeting for U. of I. medical students to put across those same ideas.

The Task Force has spurred the IMS Physicians' Placement Bureau to increased activity. The Placement Bureau gathers information about interns,

residents and physicians temporarily in military service who are willing to consider entering private practice in Iowa, and it seeks out their successive addresses in order to keep track of them, provides them the types of information they want concerning opportunities in Iowa, and puts them in touch with physicians or other citizens whose communities have some or all of the characteristics that they have said are most attractive to them.

The Task Force sees to it that complimentary subscriptions to the JOURNAL OF THE IOWA MEDICAL SOCIETY are provided to all junior and senior students at the U. of I. College of Medicine as a means of showing them what Iowa physicians are doing about the state's health problems. It also mails a complimentary copy of the July JOURNAL (the issue containing summaries of the projects and other activities that the IMS has carried on during the previous 12 months) to the current year's U. of I. medical graduates, regardless of where they are interning, and to all of the physicians who are serving internships or are taking specialty training in Iowa City.

Several organizations closely associated with the IMS engage in recruiting, and the Task Force coordinates and cooperates in their work. The Scanlon Medical Foundation/Iowa Medical Society has in excess of $200,000—most of it contributed by physician members of the IMS—which it keeps constantly revolving, constantly on loan to medical students who otherwise almost certainly would have had to drop out of school. The borrowers pay no interest and are required to make no repayments of principal until they have finished their training and have begun to practice medicine. The medical profession's Woman's Auxiliary —at the state level and, in some instances, at the county level too—distributes health-vocation literature through school counselors, sponsors preprofessional health-careers clubs in the high schools, and maintains a loan program to aid young people who are in training to become nurses, therapists or technologists. Finally, the Task Force cooperates with voluntary organizations like the Health Planning Council of Iowa and its regional counterparts, which set priorities and strive to prevent overlapping or needless duplication in the construction of health-care facilities and in the purchase of equipment, and it cooperates with governmental agencies and private organizations that plan and/or furnish care for convalescent, elderly or disabled people whose needs do not require the type of attention available only in a general hospital.

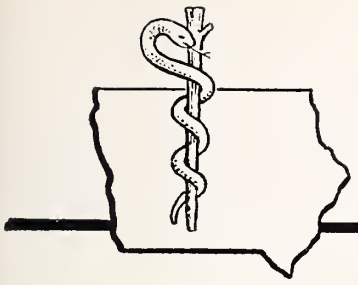


As was said earlier, the IMS and the other organizations that are attempting to improve health care for all Iowans want and need assistance in achieving that objective—assistance particularly at the local level.

Each physician in the state should encourage attendance at the conference that is to be held in his area, and he should attend it himself.

The schedule is as follows:

- OCTOBER 21—SPENCER—STUBB'S RANCH KITCHEN: Osceola, Dickinson, Emmet, O'Brien, Clay, Palo Alto, Buena Vista
- OCTOBER 23—SIOUX CITY—BILMORE DINING ROOM: Woodbury, Plymouth, Monona, Sioux, Ida, Sac, Crawford, Cherokee, Lyon
- OCTOBER 30—CRESTON—HERITAGE ROOM, FIRST NATIONAL BANK: Adair, Adams, Union, Clarke, Taylor, Ringgold, Decatur
- NOVEMBER 5—MASON CITY—SHERATON MOTOR INN: Kossuth, Winnebago, Worth, Mitchell, Hancock, Cerro Gordo, Floyd, Franklin, Chicasaw
- NOVEMBER 6—FORT DODGE—STARLITE INN: Pocahontas, Humboldt, Wright, Calhoun, Webster, Hamilton, Carroll, Greene, Hardin
- NOVEMBER 12—WATERLOO—ELKS CLUB: Butler, Bremer, Grundy, Black Hawk, Buchanan, Tama
- NOVEMBER 13—CEDAR RAPIDS—HOTEL ROOSEVELT: Linn, Delaware, Benton, Jones, Iowa, Johnson, Cedar, Washington
- NOVEMBER 18—DECORAH—CLIFF HOUSE: Winneshiek, Allamakee, Fayette, Howard
- NOVEMBER 19—DUBUQUE—DODGE HOUSE: Dubuque, Jackson, Clayton
- NOVEMBER 20—DAVENPORT—YMCA: Clinton, Scott, Muscatine
- DECEMBER 3—OTTUMWA—OTTUMWA COUNTRY CLUB: Mahaska, Keokuk, Lucas, Monroe, Wapello, Jefferson, Wayne, Appanoose, Davis, Van Buren
- DECEMBER 4—BURLINGTON—ARION CAFE: Henry, Louisa, Des Moines, Lee
- DECEMBER 10—COUNCIL BLUFFS—ELKS CLUB, LAKE MANAWA: Harrison, Shelby, Audubon, Cass, Pottawattamie, Mills, Montgomery, Fremont, Page
- DECEMBER 11—DES MOINES—COLONIAL TERRACE INN: Polk, Boone, Story, Marshall, Guthrie, Dallas, Jasper, Warren, Marion, Poweshiek, Madison



Editorials

IMMUTABILITY

The mother of a twelve year old boy recently complained about some theme topics from which her son was assigned to choose. They included such gems as Civil Defense and the Bomb, the Unwed Mother, the Cybernetic Age, Horoscopes and Astrology, Juvenile Delinquents, Homosexuality, the S.D.S. and Campus Turmoil, Moral and Legal Aspects of Abortion, and Pornography. After digesting the list of topics, the twelve-year-old seventh grader with a mind of his own, decided on his own topic . . . Raccoons!

The above was taken from a paragraph in an editorial of MISSOURI MEDICINE, August '69. It is comforting to know that even in this era of war and violence and protest that innocence and wholesomeness can still prevail at the ripe old age of 12 years.

ANTICOAGULANTS IN THE TREATMENT OF COMPLETED STROKE

A report from the Cornell Division of Bellevue Hospital on the use of anticoagulants in the therapy of completed strokes is alluded to in recent articles on the subject of management of thromboembolic disease, and deserves the attention of physicians who are called upon to treat patients presenting with one of these disorders.

The Bellevue study was started in 1956, and continued through 1961. Patients with completed thrombotic strokes were assigned on a random basis either to treated or to untreated groups, and they were followed for an average period of 7½ years. Drs. McDevitt and McDowell report the results of their experience with 200 patients with completed thrombotic strokes, and the results at the end of the first year following their entry into the study.* There were 105 patients in the untreated control group, of whom 101 were available for analysis. Four patients were lost to follow-up. At the end of a year after their admission to the study, 71 patients were living and 30 had died. The treated group consisted of 95 patients. At the end of the first year after their admission to the study group, one patient had been lost to follow-up, 80 of the group were living, and 14 had died.

During the first year there were 21 thromboembolic complications in the control group, and 10 in the group receiving anticoagulant therapy. Among the controls, 13 of the complications occurred within the first four months after the study started, in contrast to the treated patients, whose 10 complicating thromboembolic episodes were evenly distributed throughout the four quarters of the year.

According to the authors, one of the greatest problems in the management of the treated patients was keeping them on anticoagulants for long periods of time. Therapy was discontinued for a variety of reasons—from an inability to attend the clinic, or discharge to a state hospital or to nursing homes.

Anticoagulant therapy was started four to

* McDevitt, E., and McDowell, F. H.: Anticoagulant therapy of completed stroke. GERIATRICS, 23:135-140, (Feb.) 1968.

Editorials continued...

seven days after the patient's neurologic status had stabilized and after all contraindications had been excluded. The Bellevue group do not recommend the use of heparin for completed strokes. They emphasize that the dosage schedule must be adjusted according to the individual patient's response to oral anticoagulants. The initial dose of bishydrocoumarin (Dicumarol) has ranged from 200 to 300 mg., and the daily maintenance dose has varied from 25 to 100 mg. If warfarin sodium (Coumadin) was used, the initial dose was 25 to 30 mg., and the daily maintenance dose was 2.5 to 10 mg.

While patients were in the hospital, daily prothrombin times were obtained, were reported in seconds, and were compared with the daily normal control level. The dosage of anticoagulant was adjusted to maintain a prothrombin time 1½ to two times the control level. After discharge from the hospital, patients returned frequently for prothrombin determinations, and later at intervals of two to three weeks.

Adjustment of the dosage either up or down is made as necessary. Small amounts of vitamin K, by mouth, 2.5 to 5.0 mg., bring elevated prothrombin times into therapeutic range within eight to 24 hours. If the patient shows evidence of hemorrhage, larger amounts of vitamin K will counteract the action of the anticoagulants.

Physicians are admonished that they must be aware of the drugs which patients are receiving, such as broad spectrum antibiotics, salicylates and chemotherapeutic agents, and whether they are ingesting excessive amounts of alcohol. It must be remembered that barbiturates and chloral hydrate decrease the effectiveness of anticoagulants, and physicians must always be alert to a patient's plans for travel, for minor surgery, and for dental extractions.

The authors conclude: "We found that selected patients do benefit from long-term anticoagulants; they have less recurrent thromboembolism than randomly selected controls. Anticoagulants are both safe and useful."

REQUEST FOR HELP IN HAND-ABNORMALITY STUDY

During the past three years the Children's Bureau of the Health, Education and Welfare Department has supported a study being conducted by the Division of Hand Surgery of the U. of I. College of Medicine, directed at the identification and treatment of deformities of the hand. The Children's Bureau orginally supported the project because Iowa's population is relatively static and because complete records had been maintained ever since Dr. Steindler founded the Orthopedic Department, over 50 years ago.

In the past three years over 1,000 individual patients with congenital deformities of their hands have been identified. An analysis of the major diagnoses has shown that syndactyly is by far the commonest deformity, and polydactyly ranks second. Of more interest, however, is the fact that the careful search has revealed rare conditions that have only occasionally or never before been reported in the literature. Some people have contended, for example, that polydactyly of the index finger did not exist, and there was no recorded case of it, but the U. of I. research team has been able to find five separate patients having a total of seven duplicated index fingers. Other anomalies covered in the 12 scientific papers that have already been prepared or presented regarding the results of this survey include radial club hand, ulnar club hand, polydactyly of the thumb, polydactyly of the central digits, acrosyndactyly, symphalangism, symbrachydactylia and Apert's syndrome. And in this issue of the JOURNAL, there is a paper on macrodactyly.

The grant has been renewed for a further year's study in Iowa, and the project staff hopes physicians throughout the state will cooperate by identifying additional patients.

At this time the main objective of the study

is to establish the total count of child and adult patients and the types of deformity that they possess, and to see whether their family histories show recurrences of these conditions. Treatment suggestions can be made and care offered through existing programs and agencies in the state if requested, but there is no intention of interfering with the treatment of patients already under physicians' care.

A special office is maintained in Children's Hospital for the project, and all inquiries should be addressed to: Congenital Hand Study Project, Children's Hospital, Iowa City 52240. The telephone number at the office is Area Code 319 338-0525, Ext. 466.

SOME REFLECTIONS ON SURGERY AND SURGEONS

For some time, now that I have had time to settle down to the practice of surgery after the exciting years of study and surgical apprenticeship, I have felt that medicine has suffered a loss. My feeling has been confirmed by occasional articles in the journals, and more recently by the series of meetings on medical manpower in which I have participated at many places across the state. At these meetings the plain fact that there no longer are as many general practitioners as formerly has been made crystal clear. And in discussions of this problem, numerous complaints regarding medical education, our inability to retain Iowa medical graduates in this state, and the dearth of residency programs have been pointed out. The whole thrust of these meetings has been, "What can we do to bring back the old-time country doctor?" All sorts of remedies have been suggested, many of them valuable, but the point that strikes home most forcefully is that there should be no such problem at all, in the face of the giant strides that have been made in medical knowledge and techniques.

In 1543 Andreas Vesalius published his anatomy text DE HUMANI CORPORIS FABRICA, marking the beginning of modern science. The Renaissance had come to medicine, as it had also come to all other fields of learning. No longer was Galen's anatomy to hold sway. His authority was to be questioned on the basis of anatomic observation, and his text was to be corrected in accordance with what was observed. The next century saw Leeuwenhoek gazing through the microscope, discovering protozoa, bacteria and red blood corpuscles, and demonstrating the capillary anastomosis between arteries and veins. His work set the stage for William Harvey's dissertation on the circulation, DE MOTU CORDIS. Harvey knew the whole history and literature on the subject, and made a careful review of the existing theories, showing their inadequacy. He then proceeded, by experimental vivisection, ligation and perfusion, to an inductive proof that the heart acts as a muscular force-pump in propelling the blood along, and that the blood's motion is continuous and circular. The crux of his argument was that the actual quantity and velocity of the blood, as he computed them, made it physically impossible for it to do otherwise than to return to the heart by the venous route. This quantitative and mathematical demonstration made physiology a dynamic science.

Observation was rampant. In the eighteenth century Linnaeus began the vogue of classification in medicine as well as in botany. Priestley and Lavoisier and Laplace worked out theories on respiration. Scarpa, a brilliant anatomist and surgeon, gave us the first proper delineation of the nerves of the heart; William Hunter published his atlas of the pregnant uterus; and in 1759 John Bard, of New Jersey, reported three cases of laparotomy for extrauterine pregnancy. Then at the end of the eighteenth century, on May 14, 1796, Edward Jenner achieved one of the greatest triumphs in the history of medicine by performing the first vaccination upon a country boy, using matter from the arm of a milkmaid who had contracted cow-pox in the usual way.

Inductive reasoning was fruitful. Physics, chemistry and biology came to be studied as

Editorials continued...

objective laboratory sciences, dissociated from the usual subjective human prepossessions. And in 1859 Darwin's ORIGIN OF THE SPECIES placed the study of man and of man's ills in proper perspective. Semmelweis pioneered antisepsis in obstetrics, meeting fierce opposition, as did Oliver Wendell Holmes when on February 13, 1843, he read his paper "On the Contagiousness of Puerperal Fever." Pasteur's name has become a household word. His bacteriologic discoveries were applied in the operating room by Lord Lister. And in 1895 a professor of physics at Wurzburg, while experimenting with a Crookes tube, got strange shadows of solid objects which could be thrown upon a screen nine feet away. He reported on December 28 of that year to the Wurzburg Society, modestly referring to his discovery as "x-rays," but on motion of the Society they were named Roentgen rays.

The basis for surgery was established. Halsted could teach the delicate art of the perfect healing of wounds; Crile could carry research forward on surgical shock; and Cushing could boldly extend the limits in neurologic surgery. Rudolph Matas could introduce aneurysmorrhaphy, and Claude Beck could begin his work in heart operations. But even 400 years after Vesalius, surgery had not come into its own.

Technology was the key. The results of the industrial revolution were everywhere evident. First there were the cumbersome kidney machines; then extracorporeal mechanical hearts. Operating rooms became veritable forests of technical equipment. Kidney transplants, heart transplants, liver and lung transplants were performed—a far cry from tonsillectomy or appendectomy or oophorectomy done on the kitchen table in a farm house far out in the country. Science has been applied. Knowledge has been put to use. Why, then, do we feel a loss? Why do we want to bring back the old-time doctor?

Perhaps we can approach this problem by considering just what the old-time general practitioner represents to us. What did he have, even with his lack of knowledge and lack of technique? In our mind's eye we can all see a picture of the white-haired, fatherly country doctor sitting at the bedside in the patient's home, taking the pulse while members of the family are gathered around awaiting his verdict. There was quiet confidence evident—hope, not fear. There was an easy familiarity. The doctor knew his patients, and they knew him. He had delivered most of them, and had followed them through the crises and illnesses of their lives. He had presided over the deaths of their uncles and aunts, and surely over the deaths of some of their children, and had buried their grandparents. He had cared for them. He *did* care for them!

He showed this care. He was sympathetic and kindly. He listened and pondered. He accepted his patients as they were, and did what he could. He was a healer and an artist. And he remembered the aphorism of Hippocrates: "Life is short, and Art long; experience perilous, and decisions difficult." He faced life, looked it square in the eye, and enjoyed the encounter. Just so, he faced his patients and enjoyed the encounter, and they knew it. They loved him, and the burden of their suffering was lightened—all this in spite of the fact that science and technology were in their infancy.

But the picture that I have painted is largely a myth. There never were many such doctors. But maybe there were more who approached this ideal in years past than there are now. And this is the loss we feel.

Do we want the old-time country doctor, or do we want what he represented? I submit that we want what he represented, and though we wax nostalgic we cannot—and in fact we have no desire to—bring back the old-fashioned country doctor. For after all the service that he offered was a service that any present-day doctor can offer—the simple, honest, personal service that is within the grasp of any physician, be he specialist or generalist.

But to offer simple, honest, personal service is not easy. It is particularly difficult for surgeons. We surgeons are skilled technicians, as our medical confreres so often remind us. But of course a surgeon is more than that. He may even have a little knowledge. More still, he is a person. And because this is so, he can offer to his patients the kind of service represented by the ideal country doctor. There is no reason

(Continued on page 939)

Let's be specific about Campbell's Soups... and *reducing diets*



There are more than 30 million people in America who are overweight. During the next year, you probably will see more than 1,000 of them in your own practice.

One good way to help these patients is to give them a reducing diet based on ordinary eating patterns.

Campbell has prepared a sensible plan for weight control based on ordinary eating patterns. The plan consists of a patient instruction booklet and a set of menus which provide approximately 1,400 calories daily. The menus are balanced to provide the minimum daily requirements of nutrients.



To obtain a supply for your office write to:
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Pro-Banthine® Helps...

propantheline bromide

...REVEAL the ulcer

...HEAL the ulcer

The efficiency of Pro-Banthine—its favorable balance of therapeutic and secondary actions—has been thoroughly tested and observed. This quality has been demonstrated surgically, roentgenographically, cinegastroscopically and, above all, clinically.

When physicians needed to relax the restless duodenum for the recently refined technic of hypotonic duodenography they logically turned to Pro-Banthine.

For years Pro-Banthine has been the most widely used anticholinergic medication for calming the gastrointestinal tract—for suppressing secretion, prolonging the action of antacids and providing the proper environment for healing peptic ulcers.

These established therapeutic actions make Pro-Banthine particularly useful in:

- peptic ulcer
- gastritis
- diverticulitis
- irritable colon
- biliary dyskinesia
- functional hypermotility

We wish to thank Drs. Marcia K. Bilbao, Louis H. Frische, Josef Rösch and Charles T. Dotter for this exceptionally graphic example of hypotonic duodenography.

Contraindications: Glaucoma, severe cardiac disease.

Precautions: Since varying degrees of urinary hesitancy may occur in elderly men with prostatic hypertrophy, this should be watched for in such patients until they have gained some experience with the drug. Although never reported, theoretically a curare-like action may occur with possible loss of voluntary muscle control. Such patients should receive prompt and continuing artificial respiration until the drug effect has been exhausted.

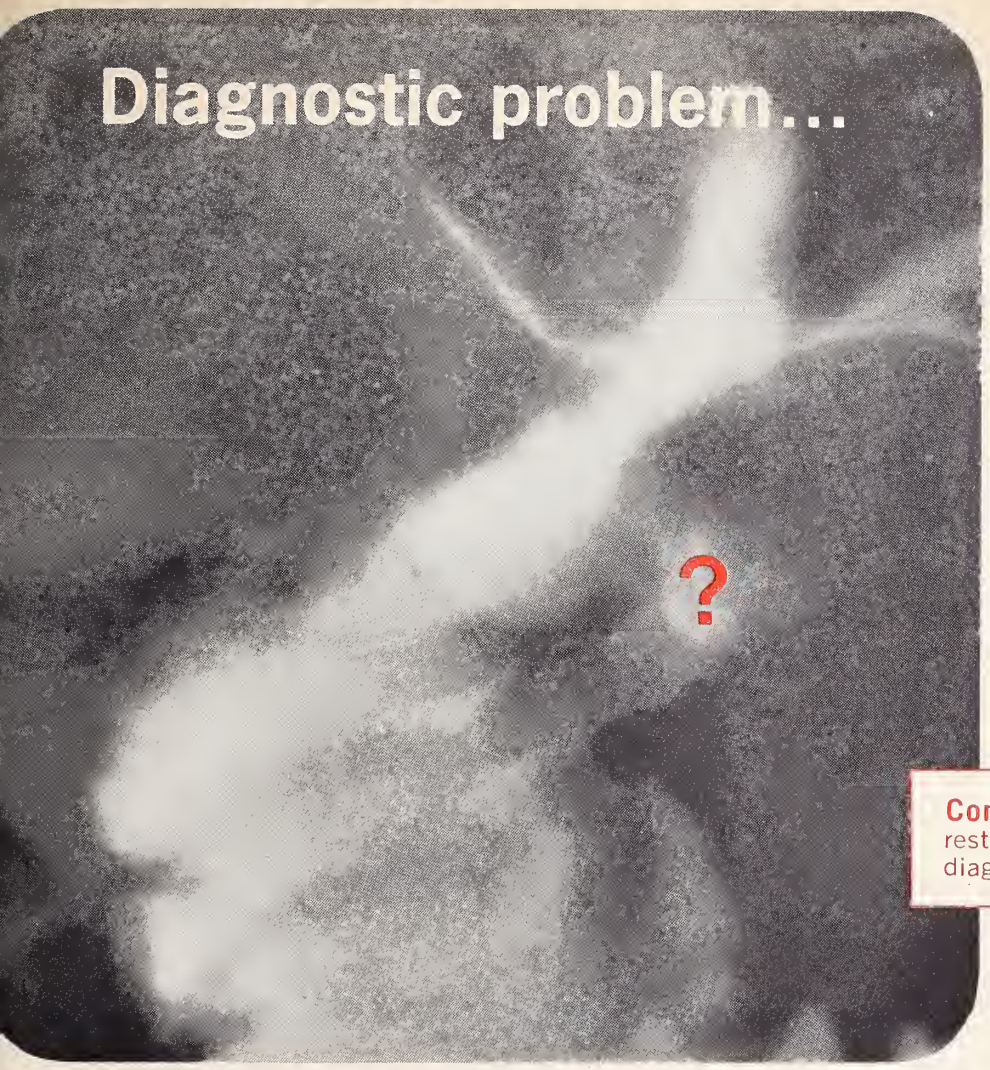
Side Effects: The more common side effects, in order of incidence, are xerostomia, mydriasis, hesitancy of urination and gastric fullness.

Dosage: The maximal dosage tolerated without excessive side effects is usually the most effective. For most adult patients this will be four to six 15-mg. tablets daily in divided doses. In severe conditions as many as two 15-mg. tablets four to six times daily may be required. Pro-Banthine (brand of propantheline bromide) is supplied as tablets of 15 mg., as prolonged-acting tablets of 30 mg. and, for parenteral use, as serum-type vials of 30 mg. The parenteral dose should be adjusted to the patient's requirement and may be up to 30 mg. or more every six hours, intramuscularly or intravenously.

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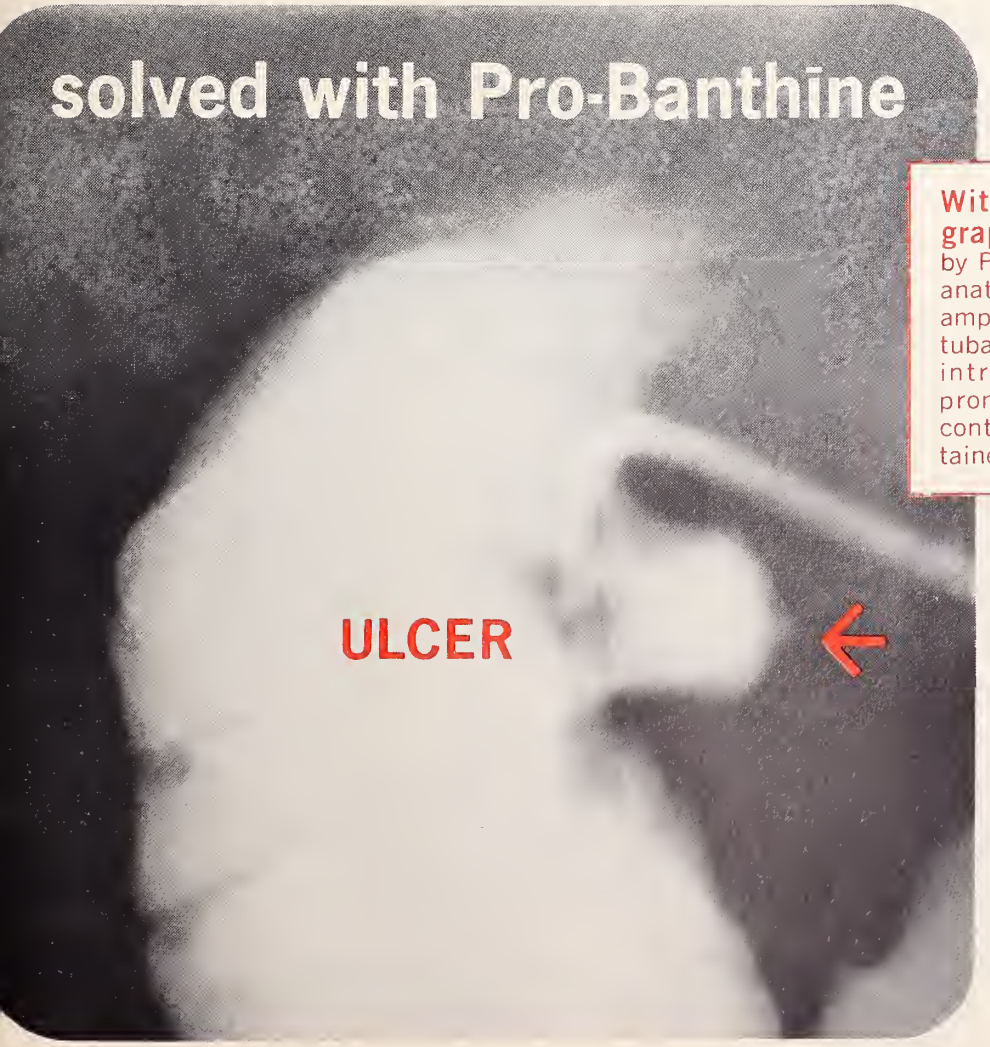
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Diagnostic problem...



Conventional x-rays of the restless duodenum are often diagnostically indefinite.

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With hypotonic duodenography duodenal calm induced by Pro-Banthine permits clear anatomic appraisal. In this example the duodenum was intubated. Pro-Banthine, 60 mg. intramuscularly, produced prompt aperistalsis. Double contrast visualization was obtained with barium and air.

What's Polycillin® (ampicillin trihydrate) got to do with the price of bananas?

Just this: According to the U.S. Bureau of Labor Statistics, bananas are one of the few things that actually cost less today than five years ago. The same is true of Polycillin. In fact, the price of Polycillin has been reduced about 30% since its introduction in 1963...making it, according to national surveys of patient costs, as economical as leading brands of tetracycline and erythromycin.

And Polycillin is available in a variety of dosage forms for your patients—more than any other ampicillin. It comes in 250 mg. and 500 mg. capsules; in convenient, chewable tablets of 125 mg; oral suspension, 125 mg. and 250 mg. per 5 ml.; and in pediatric drops, 100 mg. per ml. Also available parenterally as Polycillin-N (sodium ampicillin).

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Division of Bristol-Myers Co.
Syracuse, New York 13201



Editorials continued...

for any patient's becoming simply "that appendectomy in Room 201" or "the gastric in Room 105." A patient so regarded will surely sense his anonymity, and a brilliant surgical procedure will become a failure.

The surgeon often thinks it unnecessary to have much in addition to his knowledge and surgical skills. And so in the excitement of acquiring his knowledge and his techniques, he neglects the art of caring. But the art of caring requires much knowledge and even more skill. It takes all the knowledge and skill one can come by if he is to grow into a person who *cares*. And insofar as we care, just so far will we be able to offer to our patients simple, honest personal service.

The surgeon, then, if he cares, can apply his knowledge and skill, person-to-person, with care. He can foster and strengthen the care that he renders *and has* for his patients. And he can encourage the fostering and developing of this art of caring in medical students, interns and residents.

Let us all be complete physicians. Then we shall feel no loss, and our patients will not be dissatisfied. We can all be "country doctors!"

—*Homer L. Skinner, Jr.*, M.D.

LAST WISH

As one observes the long years of suffering of loved ones and of old friends, or sees the vacuous faces of the aged and the senile in a nursing home awaiting the blessing of eternal rest, one recalls a little poem by Emily Dickinson. It expresses so very well the feelings of physicians as they minister to those wracked with pain or suffering from anguish and despair:

The heart asks pleasure first
And then the excuse from pain
And then, those little anodynes
That deaden suffering
And then, to go to sleep
And then if it should be
The will of its Inquisitor
The liberty to die.

Letters to the Editor

Sir:

Over the past 10 years in my practice as a child psychiatrist in Michigan I have seen 12 children with cerebral dysfunction syndrome born of mothers who were currently ill with, or who by the time I saw their children had died of, disseminated lupus erythematosus.

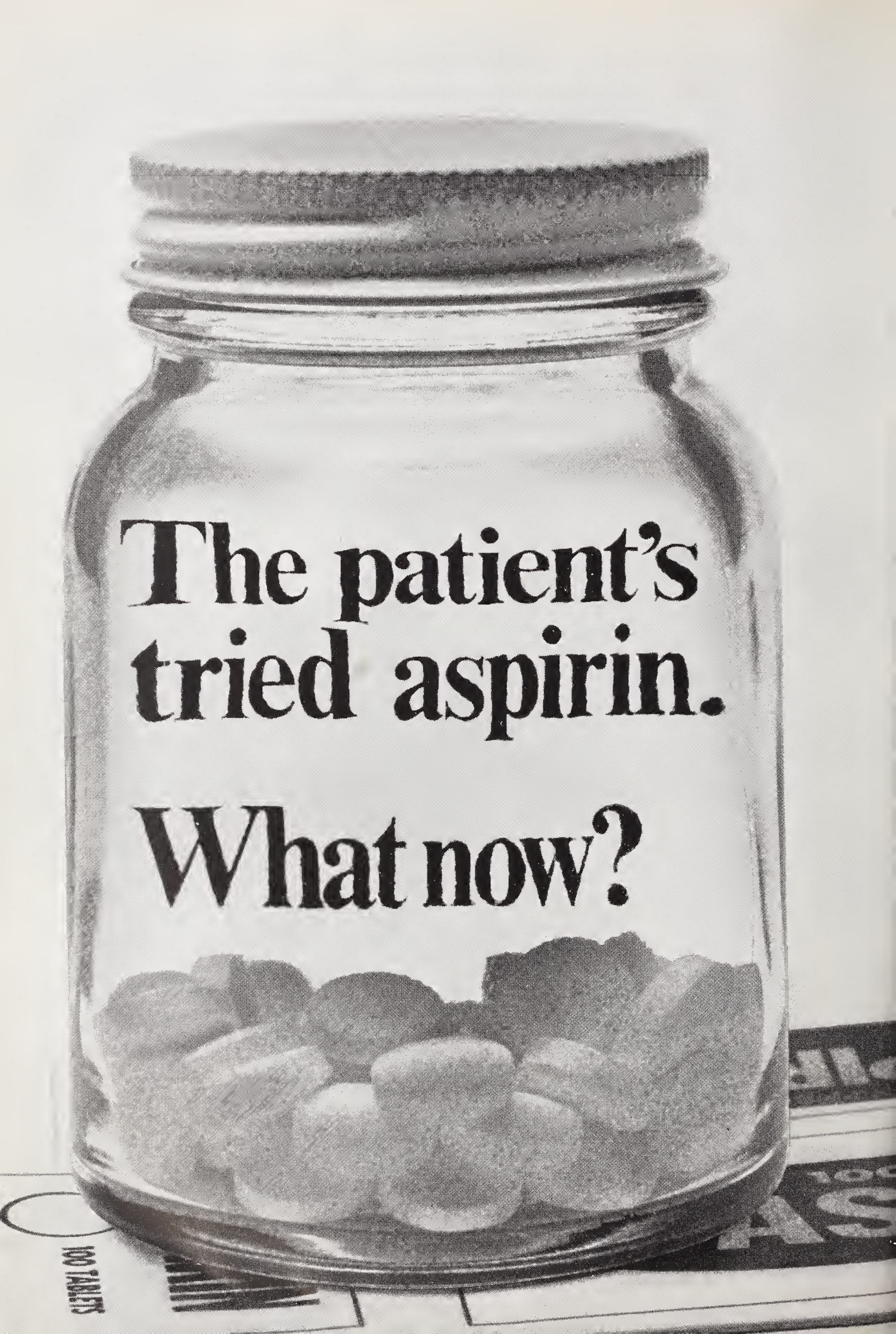
This is an interesting, though rare and non-reportable disease. Because there is a statistically proven correlation between the hyperkinetic reaction of childhood (often related to a cerebral dysfunction syndrome) and toxemia of pregnancy, it seems that my reporting this clinical hunch may lead your readers to recall delivering babies of women who were suffering from this malignant condition. No one hospital is likely to have had many such cases, and such seems to have been true here at the University of Iowa.

It is my thought that such doctors might write to me, and with the permission of the families, make it possible for me to communicate with the parents or guardians of such children. If the children are of school age and are having considerable difficulty in their academic and social adjustments, it is quite likely that they can be helped considerably by means of some of the new medications. Most of the children whom I saw in Michigan benefited considerably from methylphenidate or dextroamphetamine. More recently we have had some success in helping some such children with imipramine or some of the major tranquilizers.

Some of these children's school and social careers are in sad disarray by the time they are referred to a child psychiatrist. Of course the coincidence of this syndrome and disseminated lupus erythematosus may have been only coincidental, but it is likely that several dozen children were born of such mothers in Iowa during the period extending roughly from 1955 to 1962, and that these children are now of school age and are presenting significant clinical symptoms.

HUNTER H. COMLY, M.D.
Associate Professor of Child Psychiatry

Iowa City
July 23, 1969


The patient's
tried aspirin.
What now?
100 TABLETS

There's a good chance your patient needs more than a non-prescription analgesic for pain relief. Especially after self-medication has failed.

Because continuing, increased pain and discomfort may in part be a reflection of anxiety, Equagesic is worthy of consideration. In a single, non-narcotic preparation, it helps relieve pain . . . *and* associated anxiety and tension.

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(meprobamate and ethoheptazine citrate with aspirin) Wyeth

IN BRIEF

Contraindications: History of sensitivity or severe intolerance to aspirin, meprobamate or ethoheptazine citrate.

Warnings: USE IN PREGNANCY: Safety for use during pregnancy or lactation has not been established; therefore, it should be used in pregnant patients or women of child-bearing age only when the physician judges its use essential to the patient's welfare.

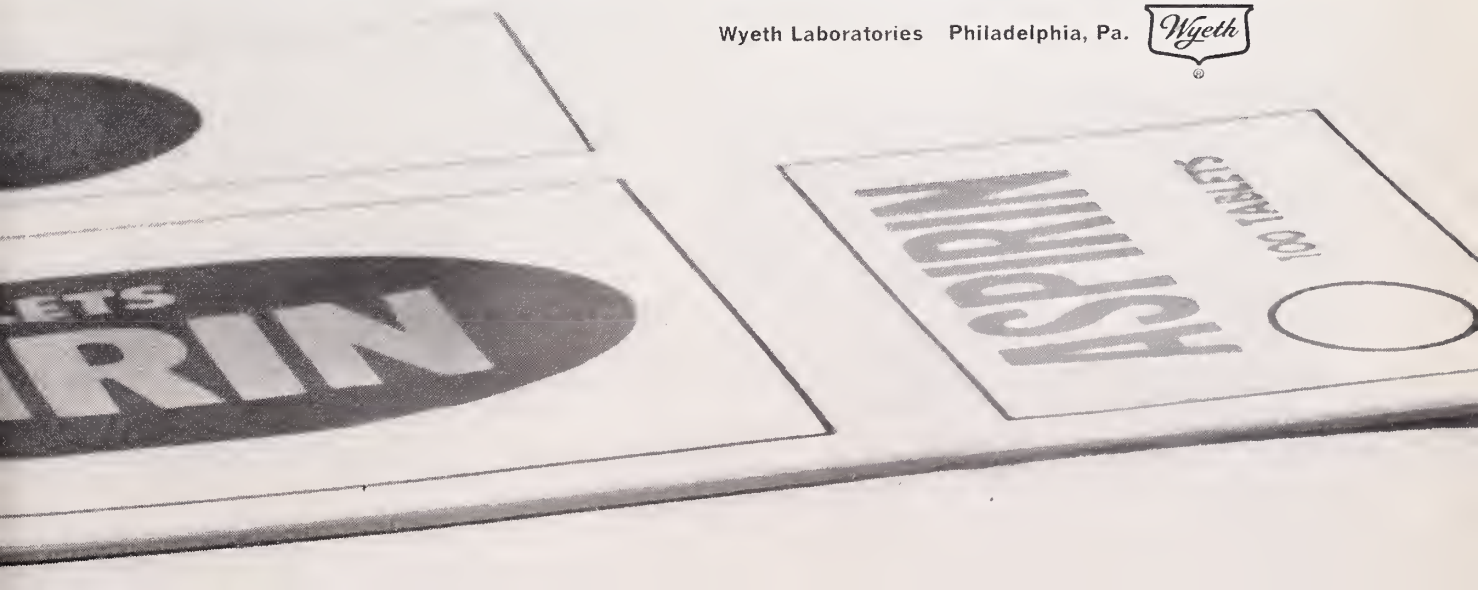
Precautions: Keep out of reach of children. Not recommended for patients 12 years old or less. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use of meprobamate in susceptible persons—as alcoholics, ex-addicts, severe psychoneurotics—has resulted in dependence or habituation. Withdraw gradually after prolonged excessive dosage to avoid possibly severe withdrawal reactions including epileptiform seizures. Warn patients of possible reduced alcohol tolerance, with resultant slowed reactions and impaired judgment and coordination. If drowsiness, ataxia or visual disturbances (impairment of accommodation and visual acuity) occur, reduce dose. If symptoms persist, patients should not operate machinery or drive. After meprobamate overdose, prompt sleep, reduction of blood pressure, pulse and respiratory rates to basal levels, and hyperventilation are reported. Give cautiously and in small amounts to patients with suicidal tendencies. Treat attempted suicide (has resulted in coma, shock, vasomotor and respiratory collapse and anuria) with gastric lavage and appropriate symptomatic therapy (CNS stimulants and pressor amines as indicated). Two instances of accidental or intentional significant overdosage with ethoheptazine and aspirin have been reported. These were accompanied by CNS depression (drowsiness and lightheadedness) but resulted in uneventful recovery. On basis of pharmacologic data, CNS stimulation could be anticipated, with nausea, vomiting and salicylate intoxication (requires induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, and observation for hypoprothrombinemic hemorrhage [usually requires whole blood transfusions]).

Adverse Reactions: Ethoheptazine and aspirin may cause nausea with or without vomiting and epigastric distress in a small percentage of patients. Dizziness is rare at recommended dosage. Meprobamate may cause drowsiness, ataxia and rarely allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses. Such patients may have had no previous contact with meprobamate and may or may not have an allergic history. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have been reported. If allergic reaction occurs, discontinue meprobamate; do not reinstitute. Severe reactions, observed very rarely, include fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. These cases should be treated symptomatically including, when indicated, such medication as epinephrine, antihistamine and possibly hydrocortisone. A few cases of leukopenia, usually transient, have been reported on continuous use. Rarely, aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia have been reported, almost always in presence of known toxic agents.

Overdosage: See precautions section for management of overdosage.

Composition: 150 mg. meprobamate, 75 mg. ethoheptazine citrate and 250 mg. aspirin per tablet.

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INFORMATION FROM THE
IOWA HEART ASSOCIATION

Method of Inspecting the Jugular Veins

NOBLE O. FOWLER, M.D.
Cincinnati, Ohio

One should position the patient so that the thorax is elevated approximately 30 degrees from horizontal, employing a bed or examining table which breaks at the hips, so that the thorax, abdomen, head and neck are elevated, while the lower extremities remain horizontal. The veins are best seen with artificial light directed tangentially across them in order to produce shadows.

Order of procedure: The external jugular veins and the internal jugular veins should be identified bilaterally. In many patients the external jugular veins are invisible. Important information may be missed if the internal jugular veins are not examined. If pulsations are not visible in the internal jugular veins, with the patient's thorax elevated to 30 degrees, then the thorax should be raised or lowered. The internal jugular veins lie deep to the sternomastoid muscles, and are best recognized by their broad, undulating, and triphasic pulsations (Figure 1). The *a* wave is produced by atrial systole. It is the quick wave which just precedes the carotid pulse. The descending limb of the *a* wave is followed by a negative wave, the *x* wave, produced by atrial diastole (Figure 2). The *x* wave is followed by the second positive wave or c wave (Figure 1). The c wave results from bulging of the tricuspid valve into the right atrium as the right ventricle begins to contract; however, in the neck veins the c wave is considerably augmented by the underlying carotid pulse. The third positive wave of the jugular pulse is the *v* wave, which is produced by passive filling of the right atrium (Figure 1). The descent of the *v* wave is referred to as the *y* descent (Figure 2), inscribed as the tricuspid valve opens and blood flows into the right atrium.

When large *v* waves dominate the internal jugular pulse, as a result of right ventricular failure or tricuspid insufficiency, the venous pulse may be confused with the carotid pulse. The following procedures will distinguish the two. Moderate pressure with a tongue blade or the edge of the hand will obliterate the jugular but not the carotid pulse. If the cervical venous pressure is increased because of right heart failure, abdominal pressure with the hand, sustained for thirty seconds or so, will usually cause the venous pulse to become larger and to ascend higher in the neck (hepato-jugular reflux). With the Valsalva maneuver, the jugular veins usually become more distended but lose their pulsations; not so the carotid arteries. Usually the jugular venous pulses descend lower in the neck during inspiration or when the patient's head is raised, but the carotid pulse is not so affected.

Dr. Fowler is on the staff of the Cardiac Research Laboratory at the University of Cincinnati College of Medicine.

INFORMATION OBTAINED FROM EXAMINATION OF THE JUGULAR VEINS

1) *Estimation of the systemic venous pressure.* When internal or external pulsations are more than 2 or 3 centimeters above the manubrium, one may be confident of elevation of systemic venous pressure, usually from right ventricular failure or constrictive pericarditis. A positive hepato-jugular reflux confirms this observation. The patient must continue to breathe normally and must not perform a Valsalva maneuver during the test. Bilateral non-pulsatile distention of the jugular veins, associated with a collateral venous pattern over the upper chest, suggests superior vena caval obstruction from aortic aneurysm, lymphoma, thymoma, or bronchogenic carcinoma.

2) *Distention of only the left jugular veins.* This usually indicates obstruction of the left innominate vein (kinked left innominate vein). This most commonly results from an elongated aortic arch associated with hypertension or atherosclerosis. However, on occasion, the left innominate vein is compressed by an aneurysm involving the aortic arch.

3) *Prominent a waves* in the jugular venous pulse with each cardiac cycle suggest forceful right atrial systole, related either to tricuspid obstruction or increased thickness of the right ventricular wall (decreased compliance). The following clinical causes may be considered:

a) *Tricuspid stenosis.* Usually there is accompanying rheumatic mitral disease. The *a* wave may ascend in the neck during inspiration, whereas normally it descends during inspiration. There are usually shallow and slow *x* and *y* descents (Figure 2).

b) *Congenital tricuspid atresia.*

c) *Right atrial myxoma.*

d) *Pulmonary valvular stenosis of moderate or severe degree.* Prominent *a* waves are ordinarily not to be found in tetralogy of Fallot.

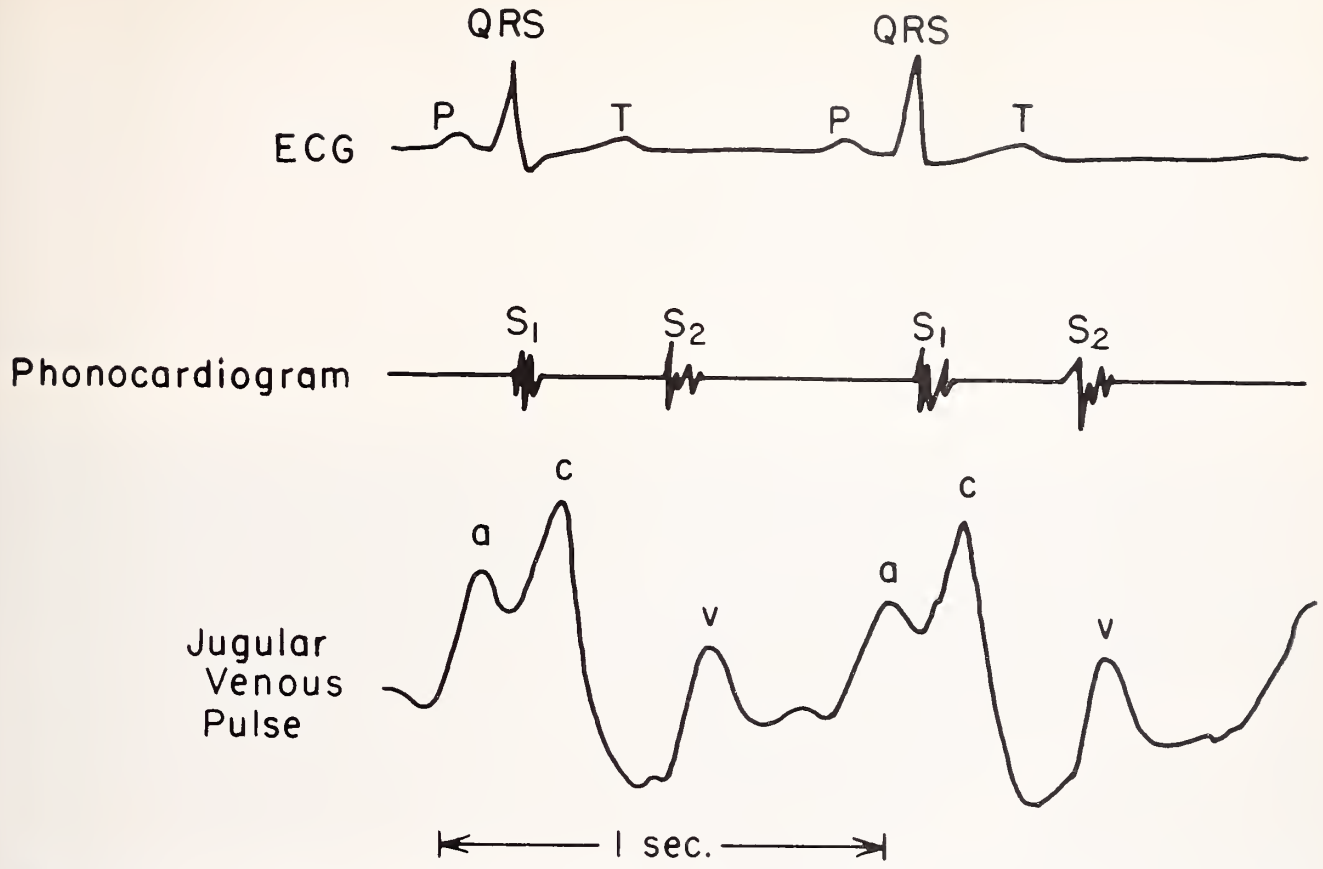


Figure 1. External recording of normal jugular venous pulse, demonstrating a, c, and v waves. For discussion, see text. From Fowler, N. O., Cardiac Diagnosis. Hoeber-Harper, 1968. By permission.

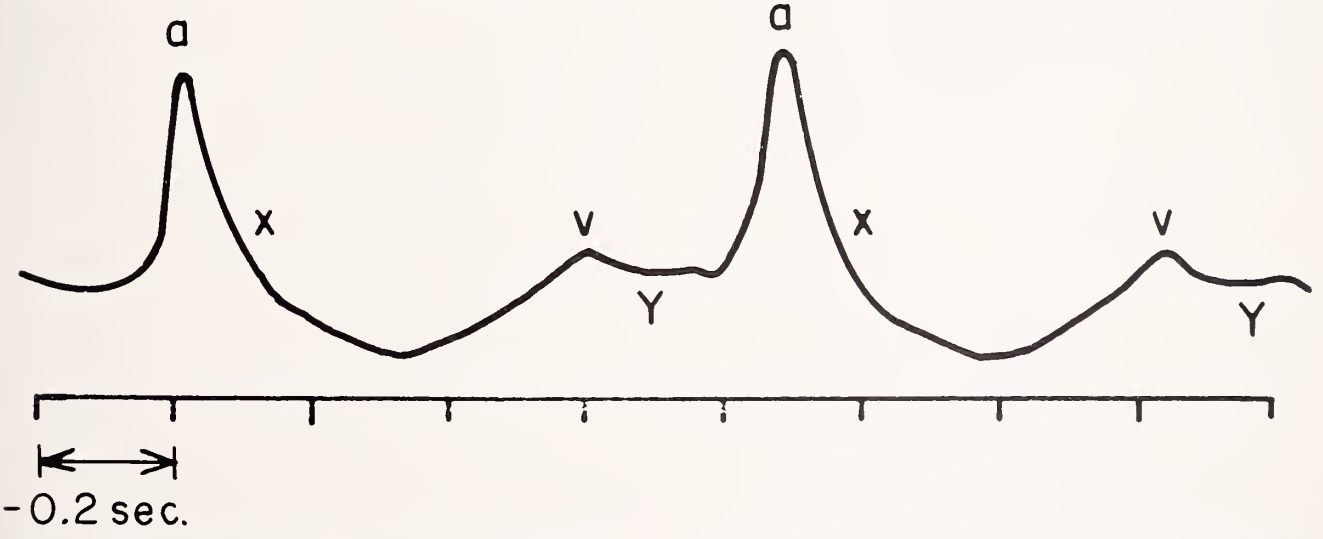


Figure 2. External recording of jugular venous pulse of a patient with tricuspid stenosis, showing large a wave and slow y descent. From Fowler, N. O., Cardiac Diagnosis. Hoeber-Harper, 1968. By permission.

e) *Congenital pulmonary atresia with intact ventricular septum.*

f) *Pulmonary hypertension.* Mitral stenosis, lung disease, idiopathic or thromboembolic pulmonary hypertension, or pulmonary arterial branch stenosis may be the cause. Prominent *a* waves occasionally occur in Eisenmenger's syndrome.

g) *First degree A-V block of sufficient degree that atrial systole occurs when the tricuspid valve is closed.* Similarly, large *a* waves may occur during A-V nodal rhythm.

4) *Irregular giant a waves or cannon a waves.* These may occur with premature atrial or ventricular systoles, if atrial systole coincides with ventricular systole. Irregular cannon *a* waves also may occur with a regular ventricular rhythm when there is atrioventricular dissociation resulting from complete A-V block, A-V dissociation by interference or paroxysmal ventricular tachycar-

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dia. With complete A-V block in adults, the ventricular rate is usually near 40 per minute and there is varying intensity of the first heart sound. With A-V dissociation by interference, the ventricular rate is usually between 60 and 110 per minute. With ventricular tachycardia, the ventricular rate is usually between 130 and 250 per minute. The atrial rate, as judged by the jugular *a* waves, is most often at the normal sinus rate of 60 to 100 per minute.

5) *Atrial flutter.* With this one may be able to detect small rapid regular oscillations which occur approximately 300 times per minute.

6) Prominent c-*v* waves, with obliteration of the *x* descent usually reflect tricuspid insufficiency. This sign is most pronounced in patients with rheumatic mitral disease and rheumatic tricuspid insufficiency; it may also occur with right heart failure.

7) *The y descent* is usually accentuated with constrictive pericarditis (diastolic collapse of Friedreich). Patients with constrictive pericarditis almost invariably display increased venous pressure. Some demonstrate increased jugular distention during inspiration (Kussmaul's sign). This sign may be positive in occasional patients with right ventricular failure, especially in those with restrictive myocardiopathy.

Medical Meetings at Lincoln and Omaha

The University of Nebraska Medical Center, the Denver Children's Hospital and the Lincoln General Hospital are to hold an obstetric-pediatric conference at the Lincoln General Hospital on October 31 and November 1. The program will feature panel discussions of induced abortion, perinatal infection, rubella and newborn transport systems. The registration fee will be $30.

The Fifth Annual Cornhusker Conference for Surgeons has been scheduled to coincide with the University of Nebraska's Homecoming. The guest speaker will be Dr. Claude E. Welch, clinical professor of surgery at Harvard. It will be held at Lincoln General Hospital November 7 and 8.

A one-day course on neurologic subjects will be held in Omaha on November 21. Emphasis will be placed on disorders presenting common and difficult diagnostic problems to the internist and the general practitioner. The registration fee of $25.00 includes one luncheon.

All of the above have been approved for postgraduate credit by the American Academy of General Practice.

The University of Nebraska Medical Center will again offer a five-day traineeship in obstetrics and gynecology, December 8-12. Attendance will be limited to five practicing physicians. Daily seminars, rounds, clinical experience and informal discussions will provide a clinically oriented capsule review of new treatments and technical procedures. Applications should be sent to Dr. Warren H. Pearse, Department of Obstetrics and Gynecology, University of Nebraska Medical Center, Omaha 68105.

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INDICATIONS: Patients with moderate to severe anxiety and/or agitation and depressed mood; patients with depression in whom anxiety and/or agitation are severe; patients with depression and anxiety in association with chronic physical disease; schizophrenics with associated depressive symptoms.

CONTRAINDICATIONS: Central nervous system depression from drugs (barbiturates, alcohol, narcotics, analgesics, antihistamines); bone marrow depression; urinary retention; pregnancy; glaucoma. Do not give in combination with MAOI drugs because of possible potentiation that may even cause death. Allow at least 2 weeks between therapies. In such patients therapy with TRIAVIL should be initiated cautiously, with gradual increase in the dosage required to obtain a satisfactory response.

WARNINGS: Patients should be warned against driving a car or operating machinery or apparatus requiring alert attention, and that response to alcohol may be potentiated.

PRECAUTIONS: Suicide is always a possibility in mental depression and may remain until significant remission occurs. Supervise patients closely in case they may require hospitalization or concomitant electroshock therapy. Untoward reactions have been reported after the combined use of antidepressant agents having various modes of activity. Accordingly, consider possibility of potentiation in combined use of antidepressants. Not recommended for use in children. Mania or hypomania may be precipitated in manic-depressives (perphenazine in TRIAVIL seems to reduce likelihood of this effect). If hypotension develops, epinephrine should not be employed,as its action is blocked and partially reversed by perphenazine. Caution patients about errors of judgrnent due to change in mood.

SIDE EFFECTS: Similar to those reported with either constituent alone.

Perphenazine: Should not be used indiscriminately. Use caution in patients with history of convulsive disorders or severe reactions to other phenothiazines. Likelihood of untoward actions greater with high doses. Closely supervise with any dosage. Side effects may be any of those reported with phenothiazine drugs: blood dyscrasias (pancytopenia, thrombocytopenic purpura, leukopenia, agranulocytosis, eosinophilia); liver damage (jaundice, biliary stasis); extrapyramidal symptoms (opisthotonos, oculogyric crisis, hyperreflexia, dystonia, akathisia, dyskinesia, parkinsonism) usually controlled by the concomitant use of effective antiparkinsonian drugs and/or by reduction in dosage, but sometimes persist after discontinuation of the phenothiazine; severe acute hypotension (of particular concern in patients with mitral insufficiency or pheochromocytoma); skin disorders (photosensitivity, itching, erythema, urticaria, eczema, up to exfoliative dermatitis); other allergic reactions (asthma, laryngeal edema, angioneurotic edema, anaphylactoid reactions); peripheral edema; reversed epinephrine effect; endocrine disturbances (lactation, galactorrhea, disturbances of menstrual cycle); grand mal convulsions; cerebral edema; altered cerebrospinal fluid proteins; polyphagia; paradoxical excitement; photophobia; skin pigmentation; failure of ejaculation; EKG abnormalities (quinidine-like effect); reactivation of psychotic processes; catatonic-like states; autonomic reactions such as dryness of the mouth, headache, nausea, vomiting, constipation, obstipation, urinary frequency, blurred vision, nasal congestion, and a change in the pulse rate; hypnotic effects; pigmentary retinopathy; corneal and lenticular pigmentation; occasional lassitude; muscle weakness; mild insomnia; significant unexplained rise in body temperature may suggest intolerance to perphenazine, in which case discontinue. Antiemetic effect may obscure signs of toxicity due to overdosage of other drugs or make diagnosis of other disorders such as brain tumors or intestinal obstruction difficult. May potentiate central nervous system depressants (opiates, analgesics, antihistamines, barbiturates, alcohol), atropine, heat, and phosphorous insecticides.

Amitriptyline: Careful observation of all patients recommended. Side effects include drowsiness (may occur within the first few days of therapy); dizziness; nausea; excitement; hypotension; fainting; fine tremor; jitteriness; weakness; headache; heartburn; anorexia; increased perspiration; incoordination; allergic-type reactions manifested by skin rash, swelling of face and tongue, itching; numbness and tingling of limbs, including peripheral neuropathy; activation of latent schizophrenia (however, the perphenazine content may prevent this reaction in some cases); epileptiform seizures in chronic schizophrenics; temporary confusion, disturbed concentration, or transient visual hallucinations on high doses; evidence of anticholinergic activity, such as tachycardia, dryness of mouth, blurring of vision, urinary retention, constipation, paralytic ileus; agranulocytosis; jaundice. The antidepressant activity may be evident within 3 or 4 days or may take as long as 30 days to develop adequately, and lack of response sometimes occurs. Response to medication will vary according to severity as well as type of depression present. Elderly patients and adolescents can often be managed on lower dosage levels.

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BOOK REVIEWS

A Low-Cholesterol Diet Manual, by *Daniel B. Stone*, M.D., and *William E. Connor*, M.D. (Iowa City, University of Iowa Publications, Dept. N690, 1969. $2.65 postpaid).

This valuable paperback manual (60 pages) was prepared by two of the professors of internal medicine at the U. of I. College of Medicine. It is intended as a guide for physicians, dietitians and patients.

In an effort to reduce blood cholesterol by dietary means, the authors prescribe a diet in which fats are restricted to 20 per cent of the total calories, and the cholesterol intake is less than 100 mg. per day. The manual contains tables showing the cholesterol contents of various foods, some sample diets, food exchanges, and suggested recipes.

The reviewer gave his copy of the manual to a friend who has a clinical problem due to atherosclerosis, and who has endeavored for several years to keep to a low-fat, low-cholesterol diet. He—and his wife, who prepares his meals—have found the manual extremely informative and helpful.

This booklet is highly commended not only to physicians but to patients in whom a reduction of blood lipids is indicated. There should be a great demand for this excellent guide.—*Dennis H. Kelly, Sr.*, M.D.

Internal Medicine in World War II, Volume III: Infectious Diseases and General Medicine, ed. by *Col. Robert S. Anderson*, MC, USA, and *W. Paul Havens, Jr.*, M.D. (Washington, D. C., U. S. Government Printing Office, 1969. $8.25).

This final volume in the series on internal medicine in World War II continues the account of infectious diseases combatted at that time, and considers various aspects of other internal-medicine problems. It includes the account of one disease about which little or nothing had been known before the war. It was bullis fever, a tick-borne illness found in the vicinity of San Antonio. The research was carried out at Brooke General Hospital, Ft. Sam Houston, in San Antonio. It is an exceedingly exciting section to read, and the topic is completely covered in just six pages. It was written by John C. Woodland, M.D.

The chapter devoted to heat casualties offers a wealth of information in regard to heat prostration, and summarizes the vast amount of knowledge gained by the Army during World War II on ways of adjusting to life in hot and arid areas, and tolerating the hot climates.

One of the largest sections of the book is devoted to dermatology, and many fine color illustrations of cases are presented. Of interest to Iowans is the mention, on pages 555 and 556, of Lt. Col. Maurice H. Noun, late of Des Moines, who was then with the 30th General Hospital in Great Britain, and who made regular rounds to adjacent hospitals that lacked qualified dermatologists on their staffs.

The name of Col. Albert J. Glass, the author of the section on psychosomatic medicine, should also be familiar to physicians in Des Moines. Col. Glass spoke at the annual meeting of the Polk County Medical Society, held at the Savery Hotel on January 21, 1959.

This volume contains much information that is useful, and it should be included in the library of each hospital. The review copy will henceforth be available in the staff library of Iowa Lutheran Hospital, in Des Moines.—*C. Harlan Johnston*, M.D.

Water and Electrolyte Metabolism and Acid-Base Balance, by *Edward Muntwyler*, Ph.D. (St. Louis, C. V. Mosby Company, 1968. $5.85).

This monograph was intended for students taking the beginning course in general biochemistry. The book accomplishes its goal of helping these students, and also accomplishes the same goal for the practicing physician in comprehending the subjects of water balance and acid-base balance. As I read the sections on the clinical disturbances of water and electrolyte metabolism and acid-base problems I referred continually to the paragraphs on description of normal physiology. Each of these excursions back to the normal-physiology sections was very descriptive and interesting. Review of the application of the Henderson-Hasselbalch equation, the hydrogen-ion concentration, the concentrating and diluting power of the urine, the counter current multiplier process, the significance of NaCl and urea as urinary solutes, the role of RBC and plasma in osmotic pressure, what reactions in the body form acids and bases, the renal hydrogen-ion excretion and ammonia excretion were succinctly described. The clinical problems were handled in a "How To" chapter which constitutes one third of the book. The mundane problem of congestive heart failure was handled, as well as rare problems such as inappropriate secretion of ADH in bronchogenic carcinoma. This book is a great aid in understanding what is appearing in present medical literature. The 311 references are as current as proved hypotheses permit.—*Thomas D. Ghrist*, M.D.

Instructions for Patients, by *H. Winter Griffith*, M.D., (Philadelphia, W. B. Saunders Company, 1968. $25.00).

This rather large loose-leaf book has been prepared by Dr. Griffith with the help of 19 consultants. It was written for the purpose of providing the patient some minimal pertinent information about his disease and some objective areas of treatment. Dr. Griffith says he

wrote this book "because most patients do not remember what their doctors tell them." I am sure that every practicing physician has been dismayed and sometimes alarmed at how often his instructions are misunderstood or quickly forgotten.

"This collection of instruction sheets," he explains, "presents a simple method of putting into the patient's hands pertinent material about his medical problems. These can be read and reread at times and places of his own choice.

"The loose-leaf binding was chosen to make it easy for you or your assistant to remove appropriate sections at the time needed, and copy them on your office copying machine. Give the copy to the patient and return the original to the binder for future use."

It is possible to order any quantity of any title desired, or any damaged or misplaced section. Order blanks are in the back. General subjects included in the table of contents include Internal Medicine, Pediatrics, Gastrointestinal Disorders, Infectious Disease, Cardiology, Hematology, Dermatology, Neurology, Surgery, Obstetrics and Gynecology, Orthopedics, Ophthalmology, Otolaryngology, Proctology, Urology, Radiology, Therapeutic Agents, Miscellaneous Procedures, Diets, and some illustrations.

Each subject is discussed in about one or two pages, and is made as simple as possible and large print is used in order to make the instructions easy for the patient to read. It also contains blanks where the doctor can fill in the name of the specific medication he has ordered and the times when the medicine should be taken.

Once in a blue moon someone comes up with a brand new idea that is extremely practical, useful or educational. This particular notebook is in the practical area, and as mentioned above, it has been written in such a simple as well as adjustable fashion that any patient should be able to understand the doctor's wishes. The subjects mentioned include by far the great majority of difficulties that patients suffer. Therefore the sheets should be of great use to doctors such as general practitioners, internists, surgeons, pediatricians, neurologists, dermatologists and others who are actively taking care of patients. The instructions and general information are of such a nature that most doctors would agree with what is said, and as mentioned above, there are enough blank spaces on each page so that individual variations in treatment can be added.—*Daniel A. Glomset*, M.D.

PRACTICAL UROLOGY, by *Chester C. Winter*, M.D. (St. Louis, C. V. Mosby Company, 1969. $11.00).

This book offers a practical and concise review of basic urologic and associated genitourinary problems. Dr. Winter has done an excellent job in presenting a brief, yet rather complete review of the anatomy, physiology and pathology of the urinary tract. He also describes the diagnostic tests and examinations which the urologic physician must utilize in evaluating his patients. The medical management and surgical treatment of many urologic conditions are described in a clear and succinct manner.

This book will serve very well as a basic textbook for the medical student, as well as a reference book for the physician who is interested in general urology. At the end of each chapter Dr. Winter has included a list of questions for self-testing. Each chapter also has a bibliography, listing both current and classic references which will serve as an excellent springboard for the physician who wishes additional information.—*William Hornaday*, M.D.

LUNG CANCER—A STUDY OF FIVE THOUSAND MEMORIAL HOSPITAL CASES, ed. by *William L. Watson*, M.D. (St. Louis, C. V. Mosby Co., 1968).

This book covers, very thoroughly, almost all conceivable aspects of lung cancer. Beginning with a historical background, the book proceeds systematically, chapter by chapter, through etiology, pathology, clinical features, radiologic diagnosis, bronchoscopy, etc., and on through the various forms of treatment, effective or not, into the nursing management of lung cancer patients, and finally ends with a chapter on the "outlook for treatment."

The experience at Memorial Hospital is obviously extensive, so a study of that experience can be accepted as an authoritative reference. We recommend the book highly. It is easy and interesting to read, and the Lord knows the subject matter is of contemporary concern!—*Daniel F. Crowley*, M.D.

BOOKS RECEIVED

PHYSICAL DIAGNOSIS, THIRD EDITION, by *John A. Prior*, M.D., and *Jack S. Silberstein*, M.D. (St. Louis, C. V. Mosby Company, 1969. $10.50).

ROLE OF LEARNING IN PSYCHOTHERAPY, a Ciba Foundation Symposium, ed. by *Ruth Porter*. (Boston, Little, Brown and Company, 1968. $12.00).

ADRENERGIC NEUROTRANSMISSION, Ciba Foundation Study Group #33, ed by *G. E. W. Wolstenholme* and *Maeve* O'Connor. (Boston, Little, Brown and Company, 1968. $4.50).

THERAPEUTIC RADIOLOGY, THIRD EDITION, by *William T. Moss*, M.D. and *William N. Brand*, M.D. (St. Louis, C. V. Mosby Company, 1969. $22.50).

NEUROBIOLOGICAL ASPECTS OF PSYCHOPATHOLOGY, ed. by *Joseph Zubin*, Ph.D. and *Charles Shagass* M.D. (New York, Grune & Stratton, 1969. $18.75).

URINARY TRACT INFECTION IN CHILDHOOD AND ITS RELEVANCE TO DISEASE IN ADULT LIFE, by *Victoria Smallpeice*, M.D. (St. Louis, C. V. Mosby Company, 1969. $9.50).

A SYNOPSIS OF CONTEMPORARY PSYCHIATRY, FOURTH EDITION, by *George A. Ulett*, M.D., Ph.D., and *D. Wells Goodrich, M.D.* (St. Louis, C. V. Mosby Company, 1969, $9.50).

MANUAL ON ARTIFICIAL ORGANS, VOLUME I, THE ARTIFICIAL KIDNEY, by *Yukihiko Nosé*, M.D., Ph.D. (St. Louis, C. V. Mosby Company, 1969. $27.75).

MODERN TREATMENT, Vol. 6, No. 4, PSYCHIATRY IN MEDICAL PRACTICE, ed. by *Ephraim T. Lisansky*, M.D., and *Bernard R. Shochet*, M.D. (New York, Harper & Row, 1969, $16.00 per year).



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The Iowa State Department of Health maintains a stock of selected immunizing biologicals and drugs for distribution in Iowa, as a service to physicians of the state. Distribution is designed to encourage the immunization of children, to control infectious diseases, to provide a source of infrequently used items which local pharmacies may not be able to stock and to provide antibiotics for treatment of venereal disease. Another purpose of the distribution effort is to encourage the reporting of cases of disease which otherwise might escape the Department's notice.

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To Private Physicians

Most vaccines are supplied without limitation as to quantity and without charge to private physicians for adminstration in their offices to persons below 19 years of age. Private physicians are requested not to charge the patient for the vaccine, but may charge a fee to cover costs incidental to its administration.

For Establishing Clinics

Appropriate vaccines are available without limit as to quantity and without charge to well-child conferences, school programs, Head Start programs and other clinics which are conducted on a regular schedule and which have been *approved* by the local county medical society or its committee on immunization. Vaccines for clinics are furnished at the request of the person in charge of the clinic. When children are to be immunized in the offices of physicians of their own choice, the physicians should order the vaccine, since the multidose vials provided cannot be broken down by directors of programs for division among several physicians.

For Community and County-Wide Programs

Preschool Age: Appropriate vaccines are available without limit as to quantity and without charge for children under six years of age. Vaccine provided for preschoolers in community programs must be administered without charge. Thus, there must be local funding for the purchase of supplies incidental to the conduct of the program.

School-Age and Adult: Vaccines for these age groups will be supplied on a cost-reimbursement basis. Vaccines for county-wide programs may be purchased through the Department or from a pharmaceutical supply house. Exception: Measles vaccine for school-age children is supplied free of charge.

SHIPMENT OF VACCINE

Except for gamma globulin, which is not damaged by unrefrigerated shipment, and emergency shipments of rabies vaccine, *biologicals will not be dispatched from the State Department of Health between Thursday noon and Monday morning because of delays in transport.* No order will be accepted for fewer than 100 doses of oral polio vaccine. This product must be shipped in dry ice, and transportation charges are prohibitive on small orders. Large orders of biologicals to be used in school or area programs should be placed at least two weeks in advance, in order to permit sufficient time for procurement and proper handling.

MEASLES PREVENTION MATERIALS

Measles Vaccine, Live Attentuated (Edmonston Strain): Available in single dose. Measles Immune Globulin (0.4 cc for each dose of vaccine) will be furnished in quantities of 25 doses or more. Measles immune globulin must be administered with this vaccine.

Measles Vaccine, Live Further Attenuated (Schwartz Strain): Available in 50-dose vials for community-wide programs with administration by jet injectors. It cannot be administered by other methods.

Vaccinia Immune Globulin (VIG): The American National Red Cross supplies this material. Volunteer Red Cross consultants assist in the distribution. Any physician who feels that VIG might be required for a patient should telephone one of the consultants whose names, addresses and telephone numbers appear below. If it is agreed that the condition of the patient will benefit from treatment with VIG, the consultant will authorize its shipment from the nearest regional blood center. These regional blood centers have 24-hour coverage and are equipped to arrange immediate transportation to the attending physician by the most rapid means available. If necessary, the Department will assist as liaison in Des Moines for re-

ceipt and delivery. The consultant and his alternate located nearest to physicians in Iowa are: Irving Schulman, M.D., Professor and Head, Department of Pediatrics, University of Illinois College of Medicine, 840 S. Wood Street, Chicago, Illinois 60612, Telephone No. (312) 663-6711. Residence—Glencoe, Illinois (312) 835-1774.

Marvin Cornblath, M.D., Professor of Pediatrics, University of Illinois College of Medicine, 840 S. Wood Street, Chicago, Illinois 60612, Telephone No. (312) 663-6711. Residence—Glencoe, Illinois (312) 835-1774.

ANTIBIOTICS—VENEREAL DISEASE CONTROL

The following drugs are available without cost to physicians for the treatment of reported cases of venereal disease. Requests for drugs should be made directly to the Division of Venereal Disease Control and each must be accompanied by a case report.

Procaine Penicillin, Aqueous

2,400,000 units for male and 4,800,000 units for female gonorrhea cases. 4,800,000 units to 12,000,000 units for syphilis cases, depending upon diagnosis. Aqueous penicillin is the drug of choice in the treatment of gonorrhea.

Benzathine Penicillin

Distribution restricted to syphilis cases—2,400,000 to 9,000,000 units, depending upon diagnosis.

Tetracycline (250 mg. Capsules)

Distribution limited to medically-indigent syphilis patients in whom penicillin sensitivity has been definitely established.

IMMUNIZING AGENTS—INFECTIOUS DISEASES

Diphtheria, Tetanus, Pertussis (DTP): Available in 7.5 cc vials (15 doses). For children under six years of age.

Diphtheria-Tetanus Toxoids Combined (Aluminum Phosphate Absorbed) for Adult use: Available in 5 cc vials (10 doses) for immunization of persons six years of age and older.

Diphtheria Antitoxin: For passive immunization of early clinical cases. Product is a horse serum.

Smallpox Vaccine (Dryvax, Dried Smallpox Vaccine): Available in 10- and 100-dose vials.

Gamma Globulin: Available in 2 cc vials. For indigent or medical-hardship patients who have been *closely* exposed to known cases of infectious hepatitis, measles or German measles. For patients able to pay, cost reimbursement will be billed to physicians.

Typhoid Vaccine: Available in 20 cc vials for persons in close contact with a known case of typhoid fever or a known typhoid carrier. Not furnished for widespread use in "disaster conditions."

Rabies Vaccine

Duck Embryo Anti-Rabies Vaccine: For prophylaxis following the bites of rabid or suspected-rabid animals. May be used for pre-exposure immunization of persons at high risk, e.g., veterinarians, animal handlers, dog catchers, etc.

Anti-Rabies Hyperimmune Serum: For use in passive immunization of persons bitten about the face and neck, or with bites on other parts of the body within three days after being bitten. It does not replace anti-rabies vaccine, but serves as an adjunct in certain situations. Product is a serum of equine origin.

Snake Anti-Venin—Polyvalent anticrotalid: This product is for treatment of bites of most American snakes. It is of equine origin. It may be obtained direct from the Department on an emergency basis. Enough of this material for one envenomization treatment is also kept at the following Poison Centers.

Iowa Methodist Hospital
Des Moines

Lutheran Hospital
Fort Dodge

St. Joseph Mercy Hospital
Mason City

Dickinson County Memorial Hospital
Spirit Lake

Poliomyelitis Vaccine (Trivalent): Available in one-dose, 10-dose, and 100-dose vials.

Vision Services

For several years the Iowa State Department of Health has worked in cooperation with the Iowa Society for the Prevention of Blindness in testing preschool children for amblyopia ex anoposia. The program has depended heavily upon volunteers who have been trained to do the testing.

A Public Health Service ophthalmologist assigned to Iowa from July 1, 1966, through June 30, 1968, aided in the preschool vision screening, and with the Lions Club's glaucomobile he conducted glaucoma-detection surveys in communities throughout the state. In the course of the glaucoma surveys, he also gave some individual instruction to physicians in the use of the Schitz tonometer. These ophthalmologic services stimulated considerable interest on the part of the public and of the medical profession.

In the spring of 1969, the 100 ophthalmologists in the state were canvassed by letter from the Health Department:

". . . We propose that ophthalmologists, such as yourself, will on request address county medical societies to explain and demonstrate tonometry and to teach interested physicians how to use a tonometer. . . . We want to identify in

numerous areas of the state ophthalmologists willing to assist so that no one need travel far and so that each will be asked to make a limited number of appearances. . . ."

Forty ophthalmologists volunteered their services.

The county medical societies were informed that such a service was available and that the Iowa State Department of Health was acting as a clearinghouse to provide names of ophthalmologists willing to be preceptors. Twenty-four counties indicated interest, and four such programs have already taken place.

Glaucoma is a disease of insidious onset, and it is the cause of one in every eight cases of blindness. It is relatively easy to detect, and it is amenable to treatment. Because it is asymptomatic, it usually goes unrecognized until there has been a considerable loss of vision. It is hoped that instructing physicians in the use of the tonometer will result in routine screening for glaucoma and an appreciable saving of sight.

Cholera Immunizations for International Travel

The following Advisory Memorandum No. 11 from the National Communicable Disease Center of the U. S. Public Health Service is reproduced for the information of Iowa physicians:

"In recent weeks there has been an increase in the number of cholera cases being reported from countries in Southeast Asia. Cases have been reported in the following countries: Burma, Cambodia, Hong Kong, India, Indonesia, Laos, Malaysia, Nepal, Pakistan, Philippines, Singapore, Thailand, and Vietnam.

"In general, cholera is occurring mainly in rural areas; therefore, the disease will not present a threat to the usual tourist or businessman. Care concerning sources of food and *water* is advisable when visiting the countries listed above.

"The increased strictness of the quarantine, which usually accompanies such outbreaks, poses a greater problem for the traveler. All persons visiting any of the countries reporting cholera should possess a valid International Certificate of Vaccination against Cholera. The vaccine is commercially available to any licensed physician in the United States.

"The International Certificate must be stamped by the health officer or other authorized official. On primary immunization, the Certificate does not become valid until six days after the vaccine is given. In the United States, a single injection has been recommended by the Public Health Service Advisory Committee on Immunization Practices, and is thereby sufficient to satisfy the International Sanitary Regulations (*Official Records,* World Health Organization 118:54)."

Monthly Report for Month of August, 1969

Diseases	Aug. 1969	1969 to Date	1968 to Date	Most August Cases Reported From These Counties
Brucellosis	5	30	20	Scott
Chickenpox	13	3,428	4,803	Dubuque
Encephalitis				
Adenovirus type 3	1	1	0	Dubuque
viral	1	8	0	Dickinson
type unspecified	1	3	3	Pottawattamie
German measles	10	2,219	1,768	Black Hawk, Clay
Histoplasmosis	5*	14	20	Black Hawk, Davis, Jones, Story
Infectious hepatitis	22	269	356	Woodbury
Infectious mononucleosis	5	385	261	Pottawattamie
Malaria, imported,				
P. falciparum	1*	4	0	Monroe
P. vivax	3*	9	6	Marion, Muscatine, Poweshiek
Measles	4	331	98	Scott
Meningitis				
meningococcal	1	16	7	Des Moines
viral	1	2	2	Pottawattamie
type unspecified	2*	15	15	Decatur, Dubuque
Meningo-encephalitis	4	5	0	Adair, Dubuque, Guthrie, Mills
Mumps	15	3,945	10,353	Black Hawk
Rabies in Animals	3	64	98	Hancock, Hardin, Marion
Rocky Mountain Spotted Fever	1*	8	1	Hardin
Salmonellosis				
S. heidelberg	1	1	1	Chickasaw
S. newport	1	14	7	Pottawattamie
S. saint paul	1	2	1	Jasper
S. typhimurium	2	27	14	Dubuque, Pottawattamie
S. typhimurium var. copenhagen	1	7	0	Story
Shigellosis,				
S. sonnei	2	23	37	Polk, Webster
Tuberculosis	7	89	82	Scattered
Venereal disease				
Gonorrhea	360	2,710	2,610	Scattered
Syphilis	62	479	481	Scattered

* Delayed.

Can one prescription do the work of two?



Yes, Kolantyl®.

Kolantyl Gel/Wafers contain antacids, and Bentyl® (dicyclomine hydrochloride) too.

Merrell

The Wm. S. Merrell Company
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215

9-1243

(071



fast start on a short therapeutic course

Sterazolidin®

50 mg. phenylbutazone
1.25 mg. prednisone
100 mg. dried aluminum hydroxide gel
150 mg. magnesium trisilicate

Prompt anti-inflammatory action for...
relieving pain and stiffness
reducing tenderness and swelling
restoring joint movement
in bursitis, synovitis, tenosynovitis
and acute fibrositis.

Total treatment time: 7 days
Usual dosage: 2 capsules t.i.d.

Sterazolidin is valuable in the treatment of acute rheumatic conditions so often refractory to routine therapy. However, it is a potent drug, not a simple analgesic. Therefore, Sterazolidin should never be administered casually. For complete details on dosage, adverse reactions, contraindications and precautions, please see the following two pages.

Sterazolidin®

Each capsule contains:

Butazoiidin®, brand of phenylbutazone	**50 mg.**
prednisone	**1.25 mg.**
dried aluminum hydroxide gel	**100 mg.**
magnesium trisllicate	**150 mg.**

Antiarthritic
Anti-inflammatory

Capsules

Important Note Butazolidin, brand of phenylbutazone, and prednisone, the active ingredients of Sterazolidin, are both potent drugs; the pharmacologic action of each should be borne in mind when Sterazolidin is prescribed. Sterazolidin combines anti-inflammatory, analgesic, antipyretic, and antiallergic properties and cannot be considered a simple analgesic and should never be administered casually. The usual warnings, precautions and contraindications associated with Butazolidin, brand of phenylbutazone, therapy and steroids apply to Sterazolidin.

Indicatlons: *Chronic treatment of:* rheumatoid arthritis, rheumatoid spondylitis, osteoarthritis; and also treatment of acute rheumatic conditions such as bursitis, synovitis, tenosynovitis, various forms of acute fibrositis, and acute gouty arthritis.

Contralndications
Usually absolute: active, questionably healed or suspected tuberculosis, herpes simplex ophthalmia, acute psychoses or severe psychoneuroses, history of blood dyscrasia, the frankly senile patient, and active peptic ulcer.

Relative: exanthematous diseases, particularly varicella and fungal diseases (for other viral diseases, the physician must weigh the possible undesirable effects against anticipated clinical improvement), diverticulitis, recovery phase after gastrointestinal surgery, any condition complicated by cardiovascular disease, renal insufficiency, moderate or severe diabetes mellitus, thrombophlebitis, osteoporosis, convulsive disorders, thyroid disease, history of drug allergy, history of peptic ulcer, hypertension, the elderly patient, psychotic tendencies, pregnancy, except in severe disease (the safety of Sterazolidin in pregnancy has not been established), edema, and hepatic damage.

Its use in conjunction with other potent chemotherapeutic agents may greatly increase the possibility of toxic reaction, and this practice is, therefore, inadvisable. Large doses are contraindicated in patients with glaucoma.

Warning Coumarin-type anticoagulants depress prothrombin activity. This is accentuated in some cases when Butazolidin, brand of phenylbutazone, is simultaneously employed in treatment; occasional instances of severe bleeding have been reported. Patients receiving coumarin-type anticoagulants should be very carefully followed for evidence of excessive increase of prothrombin time when Sterazolidin is added to this regimen. Anticoagulant therapy can then be properly adjusted, if necessary. When prescribed alone, Sterazolidin has not been shown to influence prothrombin activity. Persistent or severe dyspepsia may be indicative of peptic ulceration. In these instances, upper gastrointestinal x-ray diagnostic tests should be performed if the drug is continued. Pyrazole compounds, such as phenylbutazone, may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Patients receiving such concomitant therapy, therefore, should be carefully observed for this effect.

Precautions and Adverse Reactions *Gluco-Corticoid Activity:* In some diabetic patients on prednisone, the insulin requirements may be increased. It is advisable to observe diabetic patients carefully during the treatment period. Since gluco-corticoids may unmask latent diabetes, all patients should be observed for this effect.

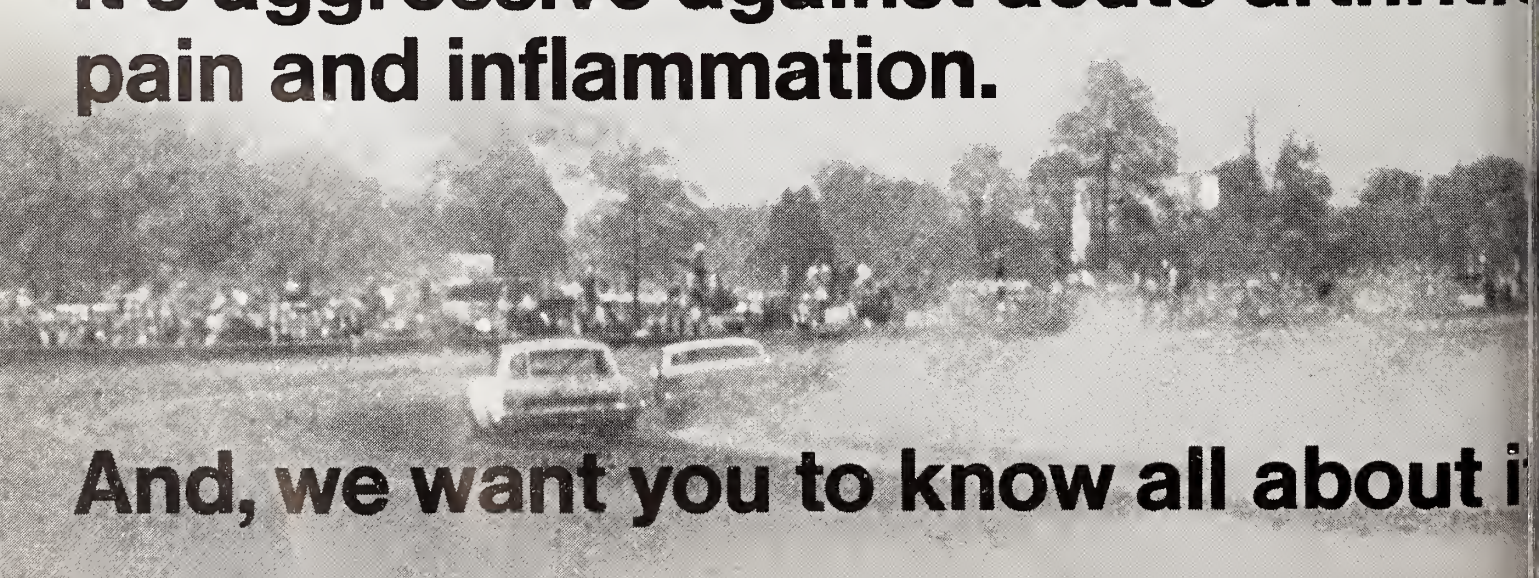
Electrolytes: Many patients receiving prednisone in average amounts show some loss of sodium, with little or no loss of potassium. With continued high dosage, however, sodium retention and potassium loss have been observed. Butazolidin, brand of phenylbutazone, has a definite tendency to produce sodium retention and hence, edema, particularly in the older age group. Elderly patients or those with hypertension, cardiac defect or renal dysfunction should therefore use Sterazolidin with special caution and the drug should be discontinued if edema develops. Developme of edema may be prevented or minimized withholding salt from the diet. Sodium ret tion may be counteracted with oral diuret

Nitrogen: With the recommended dosage Sterazolidin, the possibility of nitrogen lo remote. However, it is recommended that tients receive adequate protein in their di Osteoporosis or spontaneous fractures m occur with prolonged use of prednisone.

Gastrointestinal Tract: Clinical and anima studies do not indicate that the ulcerogen activity of prednisone or Butazolidin, brar phenylbutazone, is enhanced in the comb tion. To overcome gastrointestinal discon and occasional eructation in sensitive pat the medication is best taken at mealtime with milk; Sterazolidin contains antacid c ponents to minimize the incidence of gast complaints. All patients should be warnec report immediately the occurrence of blac tarry stools. The development of anemia s immediately suggest gastrointestinal blee

Blood Elements: Patients receiving predn exhibit an eosinophil response similar to seen with other steroids. During the initial weeks of treatment, Butazolidin, brand of phenylbutazone, usually causes some deg of hemodilution and resultant lowering of red cell count. This phenomenon does no represent a true anemia and is not indicat of intolerance, but must be distinguished true anemia secondary to gastrointestinal bleeding or other causes. With the extens use of Butazolidin, brand of phenylbutazo rare cases of agranulocytosis have occurr (ratio less than 1 per 200,000 patients). It should also be noted that agranulocytosis occur suddenly in spite of regular, repeate normal white counts. Several cases of leu kemia and leukemoid reactions have been reported with Butazolidin, brand of phenyl butazone, therapy. Although these reactio cannot be definitely attributed to this drug possibility of a causal relationship cannot excluded. It should also be recognized tha arthritic-type pains are sometimes the pre ing symptom of leukemia. Accordingly, all patients receiving Sterazolidin should hav

It's aggressive against acute arthritic pain and inflammation.



And, we want you to know all about i

ne periodic blood counts before and
ng therapy. Any unexpected, significant
ge in the total white count, relative de-
se in granulocytes, or appearance of
ature forms should be regarded as a signal
mmediate cessation of therapy and institu-
of appropriate countermeasures. Thrombo-
penic purpura and aplastic anemia must
be considered possible side effects of
apy with Butazolidin, brand of phenyl-
zone.

ss: Surgery: Prolonged use of prednisone
cause a potentially critical degree of
nocortical insufficiency which may persist
after cessation of prednisone therapy.
efore, if a patient is subjected to signifi-
stress, such as surgery or trauma, either
ng Sterazolidin therapy or within one year
cessation of therapy, it is advisable to
nister additional steroid and/or ACTH for
luration of the stress. Delayed wound
ng may also occur in patients on pro-
ed therapy.

tions: High or prolonged doses of
nisone interfere with the usual immune
anisms against bacterial and viral infec-
and may promote their dissemination. In
ral, steroid treatment should not be given
e presence of infections unless appropri-
ntibiotic therapy is instituted at the same
Systemic and localized infection compli-
ns during hormone therapy have been ob-
d, including fulminating pneumonia,
culosis, moniliasis and aspergillosis.
ld intercurrent infection develop, indi-
antibiotic therapy must be initiated
ptly. Every patient who is to receive
zolidin for any length of time should be
ughly examined, including chest x-ray,
e presence of pulmonary or extrapulmo-
tuberculosis.

onal Imbalance: Gluco-corticoids, in pro-
d dosage, may cause manifestations of
rcortisonism or Cushing's syndrome, such
oonface, abnormal fat deposits, mental
rbances, muscle weakness and atrophy,
eous striae, acne, ecchymoses, hirsutism,
trual disturbances, edema, osteoporosis
pontaneous fractures, and hypertension.
by suppressing adrenocortical function,
ic prednisone therapy may cause some
ee of atrophy of the adrenal glands. There-
if Sterazolidin is to be discontinued, the
id dosage should be tapered off gradu-
ally. In addition, it may be advisable to stimulate the adrenal glands with ACTH. Prednisone induces a prompt decrease in the urinary 17-ketosteroids. Pretreatment levels are usually regained within 7 to 14 days after cessation of therapy. Under conditions of long-term administration, a small percentage of patients on phenylbutazone may develop varying degrees of reversible thyroid hyperplasia.

Allergic Response: Development of drug rash should alert the physician to promptly discontinue the drug. The presence of prednisone in Sterazolidin may reduce the degree of allergic response; nevertheless, the same cautious attitude must be preserved with Sterazolidin as with Butazolidin, brand of phenylbutazone, if allergic manifestations occur. Other adverse reactions that have been observed with glucocorticoid therapy include: excessive appetite and weight gain, hyperidrosis, pigmentation, dry,scaly skin, thinning scalp hair, tachycardia, thrombophlebitis, headache, neuropathy (including paresthesias and neuritis), diffuse vasculitis similar to periarteritis nodosa, subcapsular cataracts, impaired renal function, lupus erythematosus-like changes, convulsions, insomnia, abdominal distention, aseptic necrosis of the femoral head, acute pancreatitis and ulcerative esophagitis.

Miscellaneous: Stomatitis and, rarely, salivary gland enlargement occasionally require the interruption of treatment with Butazolidin, brand of phenylbutazone. Adoption of a lower dosage schedule and the institution of strict oral hygiene sometimes prevent recurrence of lesions. The infrequent occurrence of such subjective sensations as vertigo or languor during therapy with Butazolidin, brand of phenylbutazone, is seldom a serious or significant complication. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hepatitis and jaundice, hypersensitivity angiitis, pericarditis and several cases of anura and hematuria. Patients should be carefully evaluated before treatment is started and those receiving Sterazolidin must remain under close medical supervision to guard against undesirable reactions such as those described. They should be instructed to report immediately the occurrence of fever, sore throat, lesions in the mouth, or black or tarry stools. It is recommended that periodic examinations of the patient include:

1. Verbal and physical examination, including blood pressure and appraisal of the cardiovascular, digestive and skeletal systems, for indications of toxic reaction.
2. Complete blood count (at weekly intervals during the first month), urinalysis, x-ray and electrolyte studies, as indicated.
3. Check of patient's weight to detect significant water retention.

Dosage Dosage should be individualized. The following general rules should be observed:

In acute therapy, dosage *should not exceed* 12 capsules on the first day and 6 to 8 capsules on succeeding days. Treatment for more than 7 days is rarely necessary. When therapy extends beyond one week, dosage should not exceed 6 capsules a day.

In chronic therapy, dosage *should not exceed* 6 capsules a day and should be tapered off gradually to establish the minimum maintenance level at which the patient still feels reasonably comfortable. A trial period of one week of therapy is considered adequate to determine the therapeutic effect of the drug. In the absence of a favorable response, therapy should be discontinued.

When switching from chronic high steroid therapy to Sterazolidin, the importance of gradual reduction of steroid dosage cannot be overemphasized. It should be kept in mind that the sterold content of 8 capsules of Sterazolidin will replace 10 mg. of prednisone (or its equivalent in related steroids).

Clinical experience indicates that most patients with rheumatoid arthritis may eventually be maintained on 3 to 6 capsules of Sterazolidin a day. It is advisable to administer the total daily requirement in divided doses.

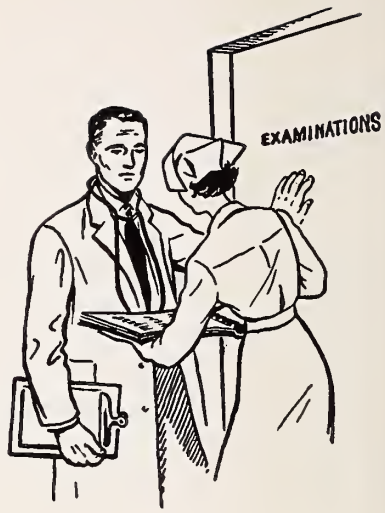
Availability Sterazolidin: Light blue and orange capsules, in bottles of 100 and 1000.
(B)46-660-B

For complete details, please see full prescribing information.

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York 10502



THE DOCTOR'S BUSINESS



Which Billing System?

LARRY E. LEAVERTON
Des Moines

Many physicians are having billing problems. Some of them blame their office personnel or their systems when their employees have been unable to keep up with their posting and billing chores. In reality the reason could be the increased volume of patients, of types of services performed, and of required forms and reports. Introducing a different system just for the sake of change is unwise, and some physicians may have neglected to evaluate their present systems of recording fees and payments, and of preparing monthly statements, and may not have considered all of the alternative systems available.

Which system is best? Well, that depends upon a number of factors. Like all other business decisions, the choice should be made only after all available types have been studied. There are five basic systems for posting charges and payments, and for billing.

MANUAL METHOD

Patient charges and payments can be posted by hand to ledger cards, and statements can be prepared by hand or on the typewriter. The advantage of this system is its simplicity. Full information is on the ledger card. The disadvantages are the excessive time involved in the manual itemization of statements that an up-to-date practice requires. A variation of the manual system utilizes a patient ledger card which has been designed to be run through a copying machine to produce the monthly statement. Another variation of the manual system consists of arranging with a processing center to microfilm the ledger cards and to prepare and mail the statements. No equipment purchases are necessary, and the physician's office staff is relieved of the entire chore.

Mr. Leaverton has been associated with Professional Management Midwest since 1949. He is a partner in the firm, and is director of its Research and Development Department.

PEGBOARD

This system gets its name from the pegboard that serves as a base for the forms used. By means of carbonized forms an operator can simultaneously write a charge slip or a receipt, a patient ledger entry, a daily journal entry and a statement. A common refinement of this system reduces the number of handwritten forms by using a copying machine to provide the statement. The advantages include timesaving, and greater accuracy and flexibility. The only disadvantage is that the statement is, in effect, handwritten. Its neatness depends upon the neatness of the operator.

POSTING MACHINE

Posting to the patent's ledger card is done by machine. The statement is created simultaneously by use of carbon, NCR paper or duplicate posting. Statements can also be made by a copy machine from the machine-printed ledger card. The chief advantage is a neat, machine-printed, itemized statement.

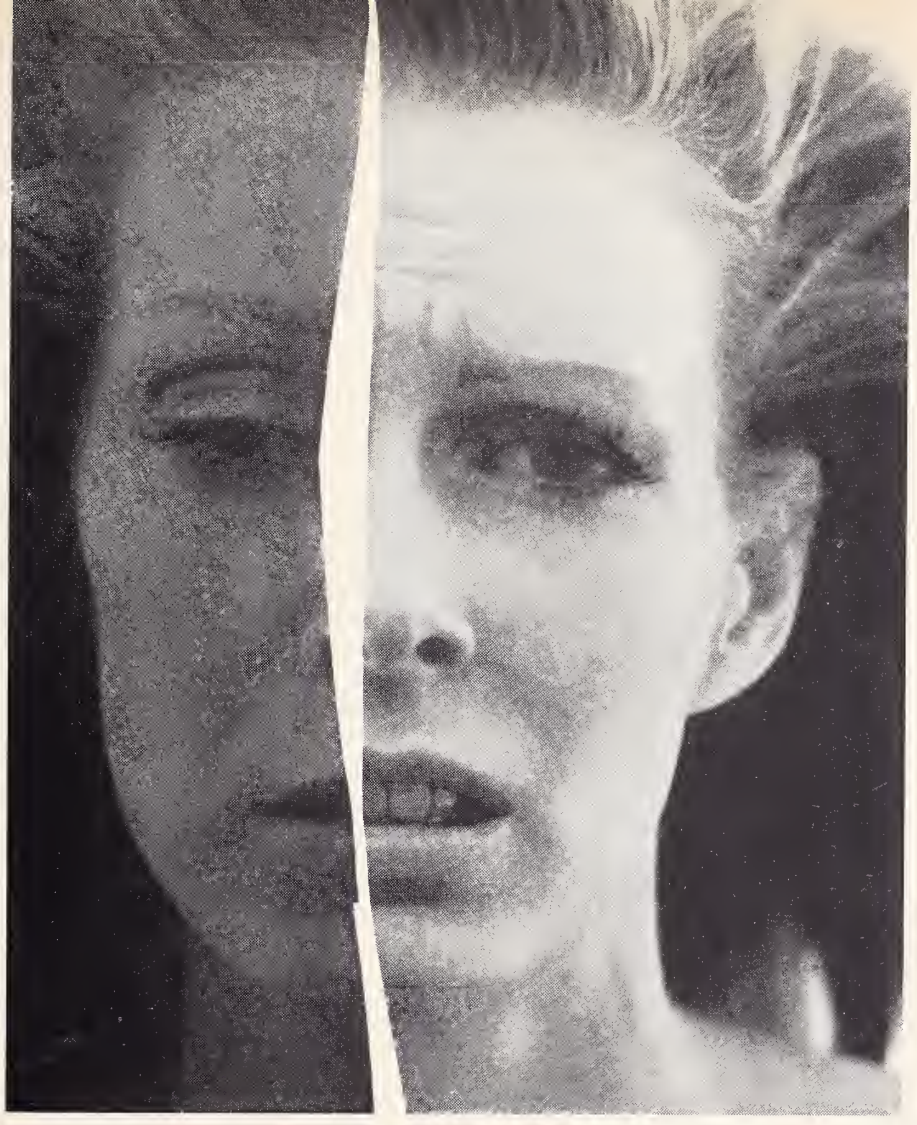
MULTIPLE FORMS

A packet of carbonized forms includes statements, original and follow-up; a copy for insurance purposes; and the patient's permanent ledger copy. In specialty practices where patients are seen only once, and where there usually are no more than one charge and one payment, this is a very simple system. A separate daybook or log has to be maintained to accumulate daily totals.

DATA PROCESSING

Systems for posting the patient ledger and preparing statements by data processing systems have been in use in Iowa since about 1958. First they employed punched cards and accounting machines, but recently they have involved newer equipment such as dataphones, tapes and computers. Data regarding the services performed, the fee and the payments are transmitted to the proc-

(Continued on page 960)



symptoms of mixed anxiety-depression are rarely clear-cut...

but they are often a clear indication for

Mellaril®
(thioridazine)
25 mg. t.i.d.

effective in mixed anxiety-depression and in moderate to severe anxiety

Before prescribing or administering, see Sandoz literature for full product information, including adverse reactions reported with phenothiazines. The following is a brief precautionary statement.

Contraindications: Severe central nervous system depression, comatose states from any cause, hypertensive or hypotensive heart disease of extreme degree.

Warnings: Administer cautiously to patients who have previously exhibited a hypersensitivity reaction (e.g., blood dyscrasias, jaundice) to phenothiazines. Phenothiazines are capable of potentiating central nervous system depressants (e.g., anesthetics, opiates, alcohol, etc.) as well as atropine and phosphorus insecticides. During pregnancy, administer only when necessary.

Precautions: There have been infrequent reports of leukopenia and/or agranulocytosis and convulsive seizures. In epileptic patients, anticonvulsant medication should also be maintained. Pigmentary retinopathy may be avoided by remaining within the recommended limits of dosage. Administer cautiously to patients participating in activities requiring complete mental alertness (e.g., driving). Orthostatic hypotension is more common in females than in males. Do not use epinephrine in treating drug-induced hypotension. Daily doses in excess of 300 mg. should be used only in severe neuropsychiatric conditions.

Adverse Reactions: *Central Nervous System*—Drowsiness, especially with large doses, early in treatment; infrequently, pseudoparkinsonism and other extrapyramidal symptoms; nocturnal confusion, hyperactivity, lethargy, psychotic reactions, restlessness, and headache. *Autonomic Nervous System*—Dryness of mouth, blurred vision, constipation, nausea, vomiting, diarrhea, nasal stuffiness, and pallor. *Endocrine System*—Galactorrhea, breast engorgement, amenorrhea, inhibition of ejaculation, and peripheral edema. *Skin*—Dermatitis and skin eruptions of the urticarial type, photosensitivity. *Cardiovascular System*—Changes in the terminal portion of the electrocardiogram have been observed in some patients receiving the phenothiazine tranquilizers, including Mellaril (thioridazine). While there is no evidence at present that these changes are in any way precursors of any significant disturbance of cardiac rhythm, several sudden and unexpected deaths apparently due to cardiac arrest have occurred in patients previously showing electrocardiographic changes. The use of periodic electrocardiograms has been proposed but would appear to be of questionable value as a predictive device. *Other*—A single case described as parotid swelling.

SANDOZ PHARMACEUTICALS, HANOVER, N.J. SANDOZ 69-384

Mild ulcerative colitis may be triggered here...



In mild ulcerative colitis, a number of factors can precipitate an attack: for instance, dietary indiscretion, such as eating raw foods, or emotional overreaction, such as that aroused by financial difficulties. No matter what causes the patient's sensitive colon to "act up," he soon suffers from acute discomfort...and often, from anxiety and apprehension as well. Such patients frequently respond well to adjunctive dual-action Librax® therapy.

Librax combines, in a single convenient capsule, the well-known antianxiety effect of Librium® (chlordiazepoxide HCl) and the dependable anticholinergic/antispasmodic effect of Quarzan® (clidinium Br). Therefore, as Librax helps to relieve the patient's excessive anxiety and reduce his overreaction to stress, it also, at the same time, helps to control hypersecretion and hypermotility, thus relieving spasm and abdominal discomfort.

With Librax, the dosage schedule is simple: 1 or 2 capsules, t.i.d. or q.i.d., will in most cases bring the patient significant relief of both the emotional and physical elements that contribute to his psychovisceral disorder.

Before prescribing, please consult complete product information, a summary of which follows.

INDICATIONS: Indicated as adjunctive therapy to control emotional and somatic factors in gastrointestinal disorders.

CONTRAINDICATIONS: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide.

WARNINGS: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

PRECAUTIONS: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and toler-

or here.



ıted). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

ADVERSE REACTIONS: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver-function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diet.

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Each fluidounce contains: 80 mg. Benadryl® (diphenhydramine hydrochloride, Parke-Davis); 12 grains ammonium chloride; 5 grains sodium citrate; 2 grains chloroform; 1/10 grain menthol; and 5% alcohol.

An antitussive and expectorant for control of coughs due to colds or of allergic origin, BENYLIN EXPECTORANT is the leading cough preparation of its kind. BENYLIN EXPECTORANT tends to inhibit cough reflex... soothes irritated throat membranes. And its not-too-sweet, pleasant raspberry flavor makes BENYLIN EXPECTORANT easy to take.

PRECAUTIONS: Persons who have become drowsy on this or other antihistamine-containing drugs, or whose tolerance is not known, should not drive vehicles or engage in other activities requiring keen response while using this preparation. Hypnotics, sedatives, or tranquilizers if used with BENYLIN EXPECTORANT should be prescribed with caution because of possible additive effect. Diphenhydramine has an atropine-like action which should be considered when prescribing BENYLIN EXPECTORANT.

ADVERSE REACTIONS: Side reactions may affect the nervous, gastrointestinal, and cardiovascular systems. Drowsiness, dizziness, dryness of the mouth, nausea, nervousness, palpitation, and blurring of vision have been reported. Allergic reactions may occur.

PACKAGING: Bottles of 4 oz., 16 oz., and 1 gal.

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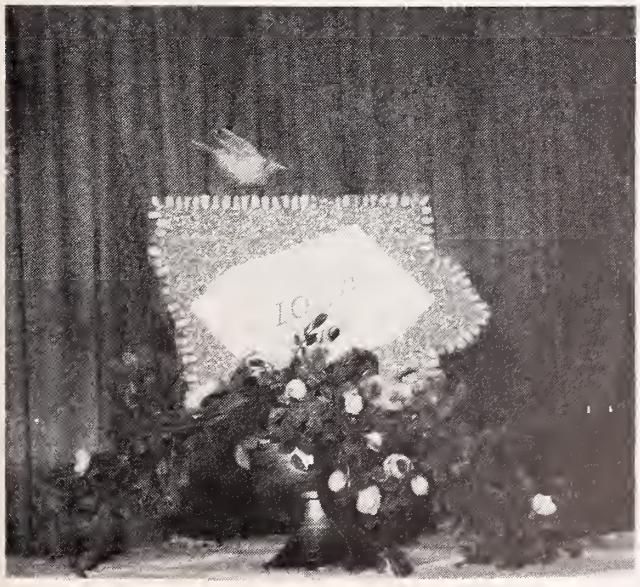
Iowa Association of Medical Assistants

We're From Iowa!

Yes, "We're from Iowa," and at the Ilikai Hotel, Honolulu, Hawaii, from October 11 to 19, 1969, our delegates, President Nancy Hutson, President-elect Colleen Proffitt, and I, plus about 30 other IAMA members, will be promoting the 1970 National AAMA Convention, which is to be held in Des Moines, Iowa.

The wild-rose hats that we shall all be wearing have been in evidence at the past two National Conventions, and many delegates have come to recognize our girls as Iowans from that state emblem. It is nice to hear someone say, "You must be from Iowa, for that's a wild rose, the Iowa state flower!" Because of this custom of wearing distinctive emblems, the representatives of the different states make the House of Delegates a colorful as well as an otherwise interesting body.

On Saturday, October 18, the annual Awards Luncheon will be held in Honolulu. At that time Miss Hutson, our president, will extend the official welcome to Iowa for the organization's 1970 meeting. All of the tables at the luncheon will contain decorations chosen at our state convention last May, and the Scott County girls (whose entry won that contest) have been hard at work arranging kernels of corn, and trying to locate enough goldfinches and wild roses to complete the 75 lovely centerpieces (see cut).



The luncheon menu will also be distinctively Iowan. Many mementos and brochures will be presented in Honolulu, and we shall all be doing our best to arouse enthusiasm and stimulate interest so that next year's Convention will be the biggest and best one ever!

Through the courtesy of the Pan-Pacific Surgical Association, which is to be in session in Honolulu at the time of our Convention, we shall hear about "The Impact of Heart Transplants" from Christiaan N. Barnard, M.D., of Cape Town, South Africa, the most famous of the surgeons doing that sort of work. There are to be other well known speakers on the AAMA's educational program. We are to hear about ancient Hawaiian medical lore, and at the Friday luncheon our honored guest will be Gerald D. Dorman, M.D., of New York City, president of the AMA. The AAMA members will again be seated "by specialty" for "exchange transfusions." That was a highly successful arrangement last year, when it was carried out for the first time.

Tips on Telephoning

Here are a few more of the pointers presented this past summer at our Iowa City seminar. When you use the telephone, allow time for the person whom you are calling to get to the phone. When your own telephone rings, answer it as promptly as possible, and identify yourself. In either case, address the other person by name, sometime during the conversation.

Screen calls carefully, but diplomatically and courteously, before granting the caller access to your physician employer. Take pains to guard his time and, especially, to avoid interrupting his office consultations except in emergencies.

Speak distinctly, but don't yell into the phone. Because many of us have no true knowledge of how we sound to others, each of us should tape-record her voice repeatedly, and listen to the recordings. The tone of one's voice communicates, as does the tempo of her speaking. Each of us will find ample room for improvement.

When you have been asked to transmit "routine orders" to a patient, or one of the patient's relatives, remember that there is nothing routine about them for the person to whom you are giving

them. To him or her, they will be unfamiliar, and may seem complex or otherwise difficult to understand and remember. Speak slowly, and be sure that you are understood. Such precautions will save the patient the necessity of calling back to say, "I didn't quite get what you said. Won't you repeat those instructions?"

And don't forget the minor courtesies, such as "please" and "thank you."

Miss Edith Ennis, of the University of Iowa, presented the following speech exercises to her audience at the Iowa City seminar:

1. Practice these phrases aloud, making sure not to slight the sounds of the underlined consonants:

a. recognized candidate
b. factual arrangement
c. trust fund
d. February second
e. kept a strict accounting
f. demand payment
g. arranging pictures

2. Practice pronouncing the following words, making sure that you do not lose any vowel sounds:

a. federal cabinet
b. especially positive
c. terrible sophomore
d. alphabetical list of liabilities
e. ivory tower
f. generally separate

3. Practice saying the phrases below. Make sure that you pronounce all the syllables, and that you do not add extra syllables.

a. accidentally hurt (not accidently)
b. laboratory technician (not labatory)
c. generally acceptable (not genrally)
d. a good athlete (not athalete)
e. across the street (not acrost)
f. accept the invitation (aksept not asept)
g. a burglar alarm (not burgular)

4. Pronounce the words below, paying particular attention to enunciation:

ache	earn	map	peat	tang	wag	wield
at	fife	nick	scab	climb	jam	path

5. Practice the following sentences trying to be as articulate as possible:

a. Peter Piper picked a peck of pickled peppers.
b. Which was the witch?
c. The whistling west wind whipped the whispering trees.
d. Thirty thousand thermos bottles were auctioned.
e. Linger a little longer, lovely lady.
f. For the sake of safety, sound your horn.
g. How now, brown cow?

May we all improve in our enunciation, pronunciation and communication!

—JEANNE D. GREEN

Which Billing System?

(Continued from page 958)

essing center, where the posting is done and the statements are prepared. The advantage is that a neat-appearing statement is prepared outside the doctor's office. There are possibilities still being developed and improved, such as the gathering of statistical and insurance information as by-products of the system. The disadvantages include the relatively high cost of data processing, the absence of full and complete financial information in the physician's office, and the duplication of effort that is involved in most instances. Preparing input data for the processing firm usually takes the same number of steps as does manual or machine posting, and thereafter, with a manual system, a few seconds and a few cents would produce a statement.

In evaluating any billing system one must consider *all* costs. If the contemplated change will increase expenses, it must be justified by counterbalancing savings in time. Will it be possible for the physician actually to get along with fewer employees? If not, but if some employee time will be made available for other tasks, can that time be put to some other productive use? If copying equipment is to be a part of the system, are there other uses that can be made of the new machine?

Claims that any type of billing system will improve collections should not be taken very seriously. Good collections result from providing good patient care, having efficient office personnel who know how to discuss financial problems with patients, issuing timely, itemized statements, and maintaining a good follow-up system for handling delinquent accounts. How statements are prepared is not very important. The main things are to prepare them and to send them out on time.

Before deciding that a different billing system is warranted in your office, be certain that your present system is operating as efficiently as possible. Then, if a change is in order, make your decision only after carefully considering all of the alternatives.

Plan to attend the

AMA CLINICAL CONVENTION

November 30-December 3

in

DENVER

Look for complete program
in the October 20 issue of JAMA

Space contributed as a public service by this magazine.

"...an inspiring example of the volunteer's role..."

says President Richard M. Nixon about plans of United Funds to boost total giving this year to better serve problem areas. His endorsement follows:

"It cannot be said too often that a large measure of the strength of this nation lies in the spirit of its people working in common purpose for a common cause....A common cause to which we have traditionally responded is the annual campaign of the United Community Funds. ...This year, the Funds... have substantially augmented the goal of their local campaigns throughout the country.

"I am pleased to endorse that goal. For I have confidence in our capacity to meet the challenge of human service, and in the success of our voluntary way of getting things done And the United Community Funds... provide an inspiring example of the volunteer's role in our daily lives.

"I urge all Americans to join in this worthy effort by generously supporting their local campaign."



President Nixon shown with representatives of various United Way member agencies.

UNITED 28.4 million families benefit from child care, family service, youth guidance, health programs, disaster relief and services for the Armed Forces through 31,500 United Way agencies.

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AMBAR #2 EXTENTABS®

methamphetamine HCl 15 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

One Ambar Extentab before breakfast can help control most patients' appetite for up to 12 hours. Methamphetamine, the appetite suppressant, gently elevates mood and helps overcome dieting frustrations. Phenobarbital, the sedative in Ambar, controls irritability and anxiety...helps maintain a state of mental calm and equanimity. Both work together to ease the tensions that erode the willpower during periods of dieting.

Also available: Ambar #1 Extentabs®—methamphetamine hydrochloride 10 mg., phenobarbital 64.8 mg. (1 gr.) (Warning: may be habit forming).

BRIEF SUMMARY/**Indications:** Ambar suppresses appetite and helps offset emotional reactions to dieting. **Contraindications:** Hypersensitivity to barbiturates or sympathomimetics; patients with advanced renal or hepatic disease. **Precautions:** Administer with caution in the presence of cardiovascular disease or hypertension. **Side Effects:** Nervousness or excitement occasionally noted, but usually infrequent at recommended dosages. Slight drowsiness has been reported rarely. See package insert for further details.

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Woman's Auxiliary News

From the President's Desk

As summer wanes and recent vacation days become a pleasant memory we suddenly awaken to the fact that fall is here and that the members of our Auxiliary must begin working days again with renewed vigor. As our families return to school books and study, it behooves us as members of the Auxiliary to renew our dedication, study, implementation and enthusiasm.

Now is an opportune time to reemphasize the reasons for joining the County, State and National Auxiliaries. They are:

1. The AMA Woman's Auxiliary is the only organization in which the doctor's wife can join forces with 90,000 other doctors' wives to assist the medical profession in its program for the advancement of medicine and the betterment of public health.

2. Only through the Auxiliary can doctors' wives work together to create a better image for American medicine and help foster favorable public sentiment.

3. Only through the Auxiliary can doctors' wives work with the approval and cooperation of medical men to solve health problems in their communities.

4. The Auxiliary is a strong, purposeful, well-recognized organization through which doctors' wives can have a collective voice in shaping public policies related to health.

5. Auxiliary membership declares to the public that the doctor's wife is proud to be associated with her husband's professional group and that she approves of its goals.

6. Auxiliary membership proclaims the pride of the doctor's wife in her husband, and in all he does and stands for.

7. Auxiliary membership demonstrates to the public that the doctor's wife is anxious to serve her community.

8. Only in the medical Auxiliary can the doctor's wife meet with other women who have common interests and common problems.

9. The Auxiliary is an exclusive group, only for doctors' wives. No others can belong. This is a responsibility and a privilege.

10. Auxiliary membership demonstrates that the doctor's wife is accepted and welcomed by the medical profession as a full partner in the work of providing better health for all people.

With these good reasons in mind, let us plan for augmenting Auxiliary membership during the months of October and November.

—Jeanne Coughlan (Mrs. D. W.)

Meet Our Members

Meet our Ella Mae Clark—more affectionately called Ellie—the wife of Dr. T. D. Clark, the mother of three and the grandmother of seven. She lived for 23 years in Victor, Iowa, where Dr. Clark was the only practicing physician. When he semi-retired by accepting an appointment at the Veterans' Hospital in Knoxville, it was to our gain. She helped organize the Marion County Medical Auxiliary, has served as its president and has been loyal and helpful to everyone.

On May 1, 1967, she took charge of the first Candy-Striper Program in Knoxville's Collins Hospital. She has had from 14 to 18 girls each year, and together they have put in a total of 4,194 volunteer hours as of September 1, 1969. She herself is a registered nurse, and is accorded a degree of respect and confidence by the young girls which is unique in this day and age.

Our hats are off to our member Ella Mae Clark.

—Mrs. D. A. Mater

Mary Jo Davey (Mrs. W. P.) is one of our most talented, efficient and attractive Auxiliary members. The Daveys have four children: Barbara (Mrs. Michael Cook), B.A. University of Iowa '69, Oklahoma City, Okla.; Abby (Mrs. Calvin Hesse), junior at University of Iowa; Patrick, a junior in high school; and Peter, a second grader.

Mary Jo sews beautifully, is an excellent cook, and loves gardening. She is very active in the Blessed Sacrament Church, in hospital auxiliary work, in the Women's Committee of the Sioux City Symphony, and on other community projects. This year, along with having two weddings in the family, undergoing major surgery and receiving a B.A. degree from Briar Cliff College, she has been our Woodbury County Auxiliary president. Sioux MedDames is proud of her.

—Lois Boden (Mrs. W. C.)

Around the Haweye State

Black Hawk County

The Black Hawk County Medical Auxiliary's impressive record has rated excel'ent publicity in the WATERLOO COURIER.

Listed among the last year's accomplishments were proceeds of $900 from the annual sale of homebound handcraft items. This project was carried out in cooperation with the Easter Seal Society of Iowa.

During the year $1,000 was given to the Black Hawk County Health Center in the former St. Francis Hospital, Waterloo. The funds represented proceeds from the annual Medical Ball. Playground equipment for the Black Hawk County Development Center was ordered, and it was installed this summer.

Eye-screening tests were given throughout the county to all the children participating in the Head Start program. The nurses among the Auxiliary members also helped staff the free immunization clinics sponsored by the Black Hawk County Medical Society on the last Saturdays of several months.

In addition to these local projects, Auxiliary members have made "Johnny coats" and have collected soap chips for the International Committee and worked for funds for AMA-ERF.

Mesdames Dolan, Plager and Boller have served as committee members for the Health Center.

Mrs. John Napier, the retiring president, will be succeeded by Mrs. Orrin Hall. Mrs. Harold Entz is president-elect.

Polk County

The Woman's Auxiliary to the Polk County Medical Society have been instrumental in furnishing TODAY'S HEALTH magazine to 84 elementary schools in Des Moines.

Three members of our Woman's Auxiliary attended a meeting held at Camp Sunnyside on August 18, for a briefing on the homebound handcraft sale held October 6 through 11 in Younkers' fifth-floor foyer. Mrs. Joseph Song and Mrs. Alexander Matthews were the chairmen for this project.

Ten members of the Woman's Auxiliary to the Polk County Medical Society helped man the "Hall of Health" project at the Iowa State Fair, August 15 through 24. Two interesting exhibits were shown this year: "A Career in Medicine" and "Your Body."

The Polk County Medical Society Advisory Committee has given its approval for our holiday greeting card project for 1969.

Woodbury County

The Sioux Med Dames provided voters with transportation to the polls for the Sioux City school-board elections. Mrs. W. P. Davey, the president, arranged for transportation. She reports having put in a busy day.

As we go to press word has just reached us of the sudden death on August 28 of Barbara Sargent (Mrs. James), of Milwaukee, Wisconsin, the National Community Health Committee chairman and Rural Health Liaison. "Barb" was immediate past president of the Wisconsin Medical Auxiliary and will be remembered by many Iowa members as a result of her attendance at their 1968 Annual Meeting.

Hiawatha

(Attending my first state medical Auxiliary board, I waxed poetic . . . or please accept my apologies, Mr. Longfellow.)

On the shores of Okoboji,
By the shining blue-lake water,
Stands the wigwam of the Grahams,
And their blond and blue-eyed daughter.

There the ladies of the doctors,
Of the Iowa Auxiliary,
Had their day-long summer pow wow,
Enjoyed Pat's hospitality.

There they talked of legislation,
There they talked of health careers,
Talked of how a doctor's lady,
Can help her husband through the years.

On the shores of Okoboji,
By the shining blue-lake water,
They feasted at the morning breakfast,

And lunch of burgers, chips, and beans,
Then before the day was over,
Their work was done mid flowers and greens.

Pleasant was the landscape round them,
Pleasant was the air above them,
For the joy of work together,
A common bond of friendship joined them.

Thanks again to Pat and Bunny,
For opening your homes to them,
Their work is done and it was fun,
Till October . . . and then thereismoreforthem.

ANONYMOUS

Guess who anonymous is?

Do You Know Your Auxiliary Geography?

Listed below are the four geographical regions of the AMA Woman's Auxiliary and a breakdown of the states in each region:

EASTERN REGION: Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia and West Virginia.

NORTH CENTRAL REGION: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota and Wisconsin.

SOUTHERN REGION: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee and Texas.

WESTERN REGION: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, Oregon, Utah, Washington and Wyoming.

How Do You Start an Anti-Crime Crusade?

With a factor of one: one crime, one dropout, one job, one bright light, one court watcher, *one determined woman.*

Then you add to the latter, *and multiply.*

Simple? Yes. Unorthodox? Perhaps. But *it works!*

In crime prevention, here are some of the things women can do:

Help keep youth in school;

Aid in exposing unqualified personnel, and in getting better ones to replace them;

Testify to legislators—giving information they need;

Honor policemen—and reduce ridicule of their performance of duty;

Raise money for needed city/county projects;

Teach children about laws that affect them—and encourage respect for the law;

Help high schoolers study government—on-the-spot, in action;

Carry through vast clean-ups—devise projects that innovate, resuscitate;

Work with public bodies such as the police, the courts, the corrections department;

Serve as consultants—improving how-to-fight-crime know-how in other communities;

Communicate with others elsewhere who want to crusade too.

Can't add it up? It won't multiply? Maybe not, mathematically. *There are no real formulae, no equations. The Crusade is too simple for that; in fact, it can be expressed in a word: volunteering.*

That's the formula. It reduces to *a will to do!* And how do you add or multiply will power, particularly when it is expressed to the nth degree?

Let's look at the structure of an anti-crime crusade. Maybe it will tell us something more. It's simple too! *Fourteen division chairmen are responsible for progress*—each in her area of concern.

Of course they have subchairmen, committees, projects, meeting times. *And periodically, division heads meet with the general chairman and the coordinator for the crusade.*

What do they do at the meetings? Again, it's simple: they

Talk over problems;

Study the situation;

Decide: where we go from here.

How does the anti-crime crusade work out in practice? Let's take an Indianapolis example, a rather novel one: *Court Watchers Watching.*

Why novel? Well, what self-respecting woman, for instance, would *ever* show up in court if she didn't have to? Not one, you say? You are wrong! *Thousands of women have been showing up in court*—decent, upright, non-arrested but supercharged citizens—two a day per court, over more than a five-year period.

What's it got them for their trouble? This: *70,000 court-watcher reports*—each from an eagle-eyed, ears-attuned woman.

Why make reports? Reports show patterns such as:

Too often, arresting officers don't appear to press charges;

Too often judges are late.

Whose fault? Women court watchers asked questions of half-a-dozen judges. What followed? Plenty! For one thing:

Court procedures were tightened up.

More questions were asked. Example: why does the median age of defendants in criminal court keep dropping? (Could the reason be in homes, not in courts?)

Raising questions raises other things. An irate

AMA-ERF CHRISTMAS CARDS

If you have not received your Christmas Card Kit from *Drawing Board* and *Hampton House,* contact Mrs. R. M. Perkins, 125 East Rusholme, Davenport 52803.

defense attorney urged the judge: "Get these women court-watchers out of here!" The judge reminded him, "Remember the Magna Carta? These watchers are here to protect the defendant whose legal rights you are said to be representing. You should be grateful, not resentful."

The defense attorney took the matter to the Supreme Court however. And Indiana's highest judicial body said, in essence: "We agree with the judge—and the court watchers."

How to be a court watcher? It's simple—*just ask.* When your time comes, study, and *fulfill your daily assignment* one day at a time. It's easy!

Court-watching is one part of the anti-crime crusade in Indianapolis. Its women can cite many others—just as revealing, just as interesting, just as productive. *As a crusader, you don't need to limit yourself to just one part of the crime front.* You can work on others, each fascinating in turn.

For instance, you can:
Support the police in their jobs;
Help young people, children;
Get to know teenager problems, and prospects;
Improve uses of tax monies;
Help young people who have had a bad start get on the path to rehabilitation and trust;
Be a lamp leader and lighter (As more lights go on, rates of crime go down—a crusade finding and lesson);
Scent out five-finger discounters (shoplifters), and save shopowners and yourself $$$;
Encourage churches and church attendance—at study tables, programs, youth-activity events, young-mother panels, court-visiting, and help to the gone-wrong, the physically handicapped, the disturbed ones;
Beautify—by shaping up, sprucing up blocks and neighborhoods with brooms and rakes and people-power (Clean blocks mean new pride, more respect for others' rights).

Tersely, even pithily perhaps, the above is the gist of The Indianapolis Story: Anti-Crime Crusade.

It began in Indiana in 1962. It's still going strong. It's healthfully contagious.

This is only a part of the Indiana story: Women's War Against Crime. Mrs. Veneta LaDine, the wife of an Indianapolis Physician who for the past six years has concentrated her time and talents in the Indianapolis Anti-Crime Crusade is currently serving as chairman of the crusade program. The movement started by women from all walks of life began following the death of a 90-year-old retired Indianapolis teacher who had been fatally beaten in 1962 by a 15-year-old purse-snatcher. The Indiana story fundamentally underlines: Properly briefed and adequately organized, the determined women of a state can fight crime and win.

The program was recently given recognition by the Chamber of Commerce of the United States, and has received many awards for its service.

If Indiana can make streets safe, so can you. Reread the story in the January, 1969 issue of MD'S WIFE.

"Anonymous" is Jane Wilson (Mrs. D. D.), Disaster Preparedness and Safety Chairman.

AMA-ERF Fund Raising Projects

Note Paper

Playing Cards

Mrs. R. M. Perkins
125 East Rusholme Street
Davenport 52803

or

Woman's Auxiliary Office
1001 Grand Avenue
West Des Moines 50265

A Reminder

The October 28 Board Meeting is to be held at the home of Dr. and Mrs. J. F. Veverka, in Prairie City, beginning at 9:30 a.m.

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

President—Mrs. D. W. Coughlan, 1435 Park Avenue, Des Moines 50315
President-Elect—Mrs. L. H. Prewitt, 33 Birchwood Hills, Ottumwa 52501
Recording Secretary—Mrs. O. A. Elliott, 4010 Welker Avenue, Des Moines 50312
Treasurer—Mrs. J. F. Veverka, Box 324, Prairie City 50228
Editor of THE NEWS—Mrs. D. A. Mater, 302 S. 4th Street, Knoxville 50138
Assistant Editor—Mrs. R. J. Foley, 1025-16th Street, West Des Moines 50265

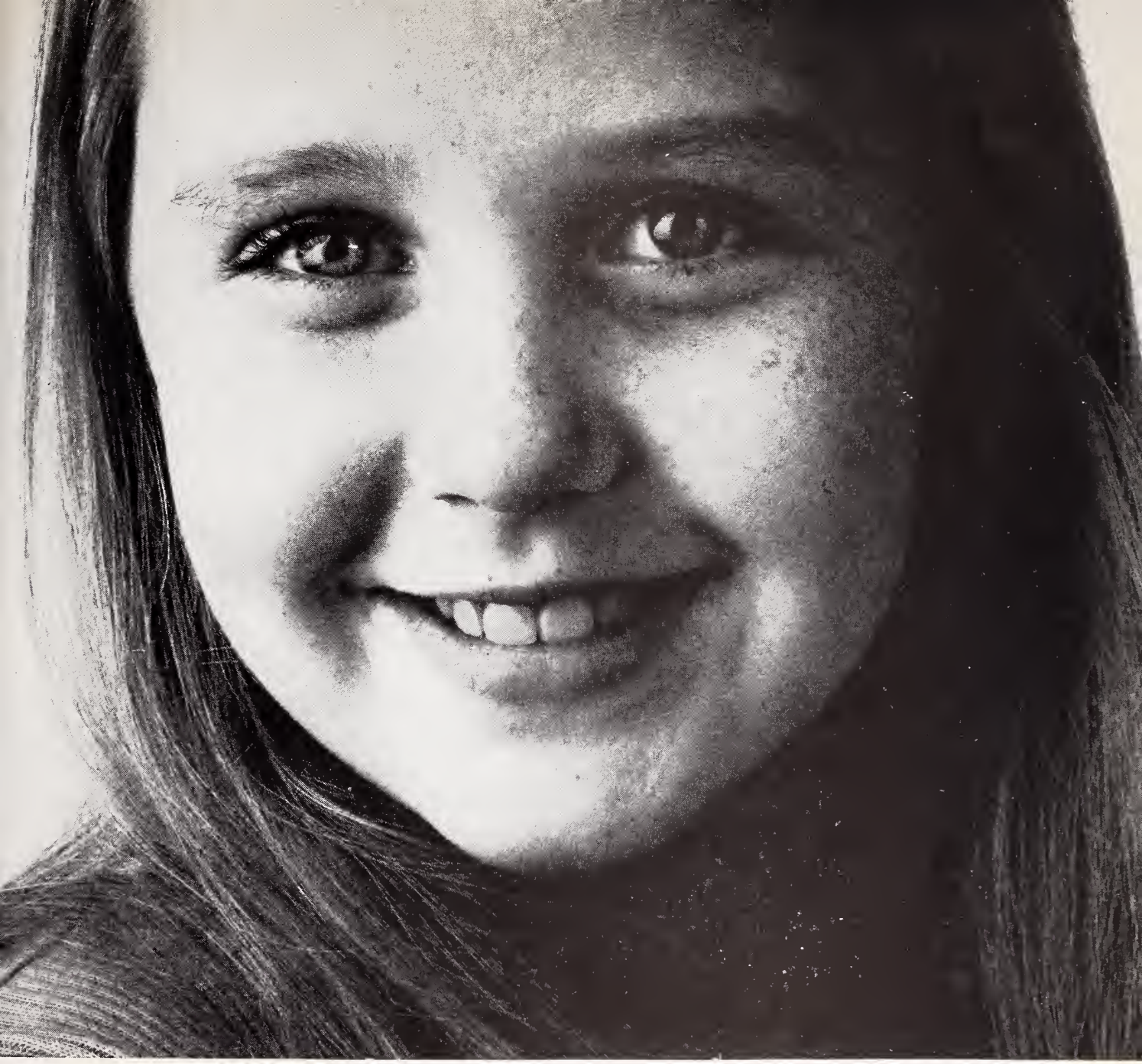


Photo professionally posed.

No injection after all!

This penicillin produces high, fast levels—orally.

Pen•Vee® K is usually so rapidly and completely absorbed that therapeutic penicillin levels are attained within 15 to 30 minutes. Thus it can often obviate the need for penicillin injections. The higher serum levels produced generally last longer than with those of oral penicillin G.

Indications: Infections susceptible to oral penicillin G: prophylaxis and treatment of streptococcal infections; treatment of pneumococcal, gonococcal, and susceptible staphylococcal infections; prophylaxis of rheumatic fever in patients with a previous history of the disease.
Contraindications: Infections caused by nonsusceptible organisms; history of penicillin sensitivity.
Warnings: Acute anaphylaxis (may prove fatal unless promptly controlled) is rare but more frequent in patients with previous penicillin sensitivity, bronchial asthma or other allergies. Resuscitative (epinephrine, aminophylline, pressor amines) and supportive (antihistamines, methylprednisolone sodium succinate) drugs should be readily available. Other rare hypersensitivity reactions include nephropathy, hemolytic anemia, leucopenia and thrombocytopenia. In suspected hypersensitivity, evaluation of renal and hematopoietic systems is recommended.
Precautions: In suspected staphylococcal infections, perform proper laboratory studies including sensitivity tests. If overgrowth of nonsusceptible organisms occurs (constant observation is essential), discontinue penicillin and take appropriate measures. Whenever allergic reactions occur, withdraw penicillin unless condition being treated is considered life threatening and amenable only to penicillin. Penicillin may delay or prevent appearance of primary syphilitic lesions. Gonorrhea patients suspected of concurrent syphilis should be tested serologically for at least 3 months. When lesions of primary syphilis are suspected, dark-field examination should precede use of penicillin. Treat beta-hemolytic streptococcal infections with full therapeutic dosage for at least 10 days to prevent rheumatic fever or glomerulonephritis. In staphylococcal infections, perform surgery as indicated.
Adverse Reactions: (Penicillin has significant index of sensitization): Skin rashes, ranging from maculopapular eruptions to exfoliative dermatitis; urticaria; serum sickness-like reactions, including chills, fever, edema, arthralgia and prostration. Severe and often fatal anaphylaxis has been reported (see "Warnings").
Composition: Tablets—125 mg. (200,000 units), 250 mg. (400,000 units), 500 mg. (800,000 units); Liquid—125 mg. (200,000 units) and 250 mg. (400,000 units) per 5 cc.

Wyeth Laboratories Philadelphia, Pa.

ORAL **PEN•VEE® K**

(potassium phenoxymethyl penicillin) Wyeth®

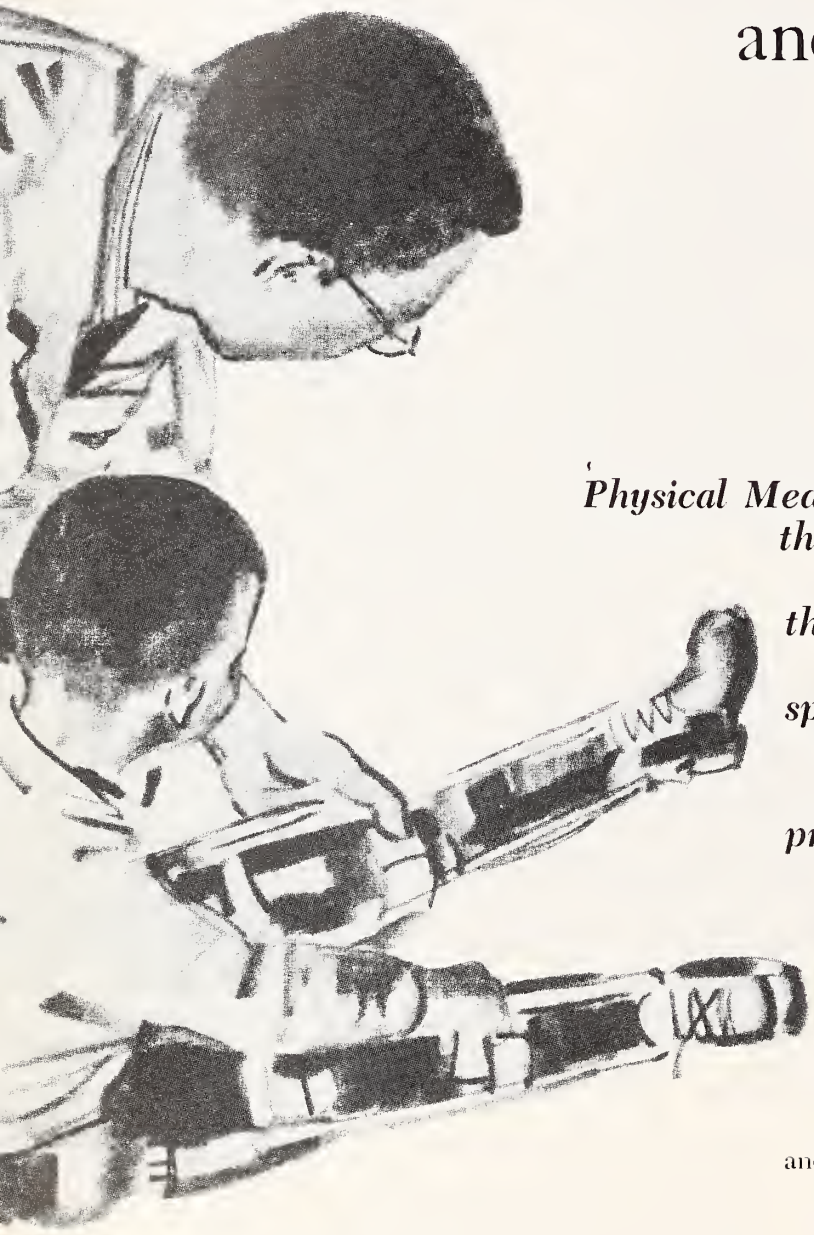
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Personals



Dr. Madelene M. Donnelly left the staff of the State Department of Health on August 24 after heading its Division of Maternal and Child Health for 19 years. She and her husband, **Mr. Daniel F. Healy,** a retired Chicago detective, have moved to Clear Lake, and Dr. Donnelly expects to do consulting work with hospitals and nursing homes from there. Some milestones in her public health work have been the preparation of the first manual for parenthood classes, helping start retardation-evaluation centers at Iowa City and Des Moines, establishment of the poison information and treatment network, and starting workshops for nurses and doctors in the area of maternal and child health.

Dr. H. W. Beard, of Mason City, is the newly-elected chairman of the North Iowa Stroke Advisory Committee of the Iowa Heart Association, succeeding **Dr. Robert McCoy,** also of Mason City. **Dr. Dale Harding,** of Eagle Grove, is the vice-chairman.

The August 14 issue of the EMMETSBURG DEMOCRAT contained an impressive account of the accomplishments of **Dr. Harold L. Brereton,** who is now beginning his fifty-first year of work in Emmetsburg. He is a 1914 graduate of the Rush Medical College, he spent the next two years as an intern at Cook County Hospital, Chicago, and he practiced for about a year in Redwood Falls, Minnesota, and a year or more in the Army before starting his present practice.

Dr. Stephen S. Jewett, a 1966 graduate of the Creighton School of Medicine, joined **Dr. Melvin G. Parks** in general practice in Centerville, early in August. He had graduated from Drake University in 1962, and he returned to Des Moines to do his internship. Since August, 1967, he has been in the Army Medical Corps, and for the past 12 months he has been in Vietnam. Mrs. Jewett's girlhood home was in Centerville; she was a student nurse at Des Moines Mercy and he gives her credit for persuading him to start private practice in Centerville. The Jewetts have four children.

Drs. Samuel J. Fomon and **Lloyd J. Filer,** both professors of pediatrics at the U. of I. College of Medicine, are to participate in a White House Conference on Food and Nutrition, in December. Dr. Fomon will be chairman of the panel discussion on guidelines for the nutrition of adolescents and children, with special reference to the poor, and Dr. Filer will be a participant in one of the other panels.

Dr. Richard H. Brandt, who recently completed a residency in internal medicine at the Kansas University Medical Center, has joined the staff of the Kersten Clinic, in Fort Dodge. He is a Kansas native, he took his B.A. and M.D. degrees at the University of Kansas, and interned at St. Luke's Hospital, Kansas City, in 1963 and 1964. He was a medical officer in the U. S. Navy from 1964 to 1966. Dr. and Mrs. Brandt have three children.

Dr. Otto C. Della Maddalena, a psychiatrist, has announced the establishment of the Waterloo Psychiatric Clinic, in the Black Building there. He, a clinical psychologist and a social worker constitute the staff.

At the September 9 meeting of the Wapello County Medical Society, at the Ottumwa Country Club, **Dr. William D. Gaunt,** an associate professor of medicine and director of the Division of Immunology and Rheumatology at the University of Missouri School of Medicine, in Columbia, spoke on "Gout, Pseudogout and Calcific Tendonitis."

Dr. Paul L. Rohlf, who started practicing urology in Davenport just a couple of months ago, just after finishing his residency training in Iowa City, counts as one of his most memorable experiences his work following the Good Friday earthquake in Anchorage, Alaska, in March, 1964. At that time he was on the obstetric and gynecologic service at Elmendorf Air Force Base there.

Effective on October 1, **Dr. Arnold Reeve** becomes head of the Nebraska State Health Department. Since early in 1967 he has been chief of the preventive medical services for the Iowa State Department of Health.

Dr. R. J. Coble, of Lake Park, has been elected to membership in the American Academy of General Practice.

On September 4 **Dr. William A. Bockoven**, an Ames psychiatrist, went back to his boyhood home town, Cresco, as a guest speaker. He addressed a meeting of the Howard County Mental Health Association there.

Dr. A. L. Jensen, of Clinton, shot a double eagle on the Gates Park Golf Course at Waterloo on August 27.

Recent developments in genetics having significance in the prediction of muscular dystrophy and mongolism were discussed by **Dr. Hans Zellweger**, a professor of pediatrics at the U. of I., in an address to the Iowa City Rotary Club late in August.

Governor Robert D. Ray has appointed **Dr. John M. Rhodes**, of Pocahontas, to a six-year term on the State Board of Medical Examiners, succeeding **Dr. James L. Coffey**, of Emmetsburg.

The Burlington Hospital Association, at a meeting held on September 3, failed by a margin of nine votes to endorse the merger of Burlington and Mercy Hospitals, despite endorsements of the plan by the boards of directors of both institutions. The combined institutions were to be known as Memorial Hospital, with a total of about 300 beds. Just 111 of the 242 members of the Association were present in person or by proxy, and thus 19 per cent rather than a third or more voted against the proposal. The Des Moines County Medical Society had voted its approval.

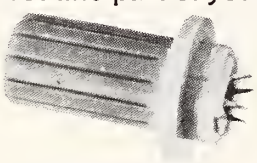
Opponents expressed doubts about the solvency of Burlington Mercy, a news story in the next day's HAWKEYE-GAZETTE reported.

Dr. J. Richard Utne, a Mason City radiologist, left Iowa on August 2 for a second two-month tour of duty aboard *SS Hope*, which is to dock at Tunis on September 13. In 1966 he was with the vessel at a port in Nicaragua. Other Mason City physicians who have been on SS Hope are **Drs. Harold Morgan, Frederick C. Brush**, and **John MacGregor**.

Dr. Marian Barnes, a general practitioner, has been made a consultant on health problems for the Cedar Rapids Public Schools. She is to confer with school nurses, counselors, psychologists and administrators, but has not undertaken to provide care for students.

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In mid-August **Dr. E. S. Brintnall,** of Iowa City, resumed doing surgery from time to time at Eldora. He had not been there since suffering a heart attack on June 5.

Dr. Charles Maplethorpe, Sr., fractured his left hip in a fall, just outside his home in Toledo, Iowa, on August 11. He is 84 years of age and a Life Member of the IMS. He retired in April, 1967.

Dr. Donald K. Faber, of Le Mars, has been elected to active membership in the American Academy of General Practice.

Dr. Kingsley Grant, of Cedar Rapids, has been appointed chairman of the Cedar Rapids mayor's commission on human rights. Dr. Grant, a pathologist at St. Luke's Hospital, has been on the commission since December 7, 1966.

Dr. William B. Bean, professor and head of the department of internal medicine at the U. of I., was the special luncheon speaker at the Great Plains Regional Heart Symposium held in the Memorial Union at the U. of I. on September 19-20. The symposium covered such subjects as prevention, bedside diagnosis, and treatment of the cardiac patient. **Dr. William R. Wilson,** of Iowa City, who was recently elected president-elect of the Iowa Heart Association, was the general chairman for the symposium.

Dr. Alexander Ervanian, a Des Moines pathologist, was one of the guest speakers at the first meeting of Region VI of the American Society of Medical Technologists held in Des Moines on September 11-13.

Dr. William Cannon, pathologist at Schoitz Memorial Hospital in Waterloo, assumed his position as the new medical director of the Waterloo Regional Blood Center on Thusday, September 4. He succeeds **Dr. Fred Dick,** pathologist at Allen Memorial Hospital in Waterloo, who had been the director for 15 years.

Dr. M. P. Vanden Bosch, chief of staff and administrator of Rehboth Christian Hospital near Gallup, New Mexico, has announced that he will establish a practice of general medicine in Grundy Center beginning October 1. Prior to his past five years with the mission from 1964 until mid-1969, Dr. Vanden Bosch had an obstetrical practice at Denver, Colorado, for 25 years. He is 57 years of age. Dr. Vanden Bosch has been granted a two-year leave of absence from Rehboth. He relinquished his duties as administrator of the Rehboth Hospital on January 1, and stepped down as chief of staff April 1.

The program for the October 3 and 4 Urology Postgraduate Conference at the U. of I. reached the JOURNAL too late for publication in the September issue, and indeed it will have been held before the October issue reaches physician readers. It included lectures by **Dr. R. H. Flocks** on "Transurethral Resection of Urethral Valves," and "The Heitz-Boyer Diversion" (accompanying a movie); by **Dr. D. A. Culp** on "Urologic Management of Meningomyelocele Patients," and "The Pathology of Exstrophy"; by **Dr. R. G. Bunge** on "A Long Look at the Conservative Management of Vesicoureteral Reflux," and "Male Intersexuality and Damage to the Upper Urinary Tract"; and by **Dr. George Nagamatsu,** head of urology at New York Medical College, on "Pediatric Urological Problems."

The annual meeting of the American Association of Blood Banks, of which **Dr. Frank C. Cole-**



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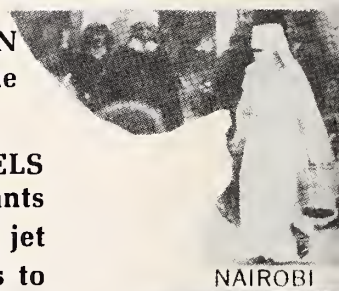
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man, of Tampa, a pathologist who practiced for many years in Des Moines, is currently president, is to be held at the Shamrock Hilton Hotel, in Houston, November 16-20.

Dr. George E. Perret, chairman of the Division of Neurosurgery in the U. of I. Department of Surgery, participated in the 13th Latin American Congress of Neurosurgery, held in Bogata, Colombia, September 13-18. He spoke on "The Derivation, Interpretation and Clinical Application of Statistical Data Concerning Intracranial Aneurysms." He also attended the World Congress of Neurological Sciences, in New York City, September 21-27, and presented two papers at the Spinal-Cord Injury Conference conducted by the Veterans Administration in New York City September 29 to October 2. The latter presentations were "Upper Gastrointestinal Tract Hemorrhage in Cervical Spinal-Cord Injury," of which **Dr. Alexandre Solomon,** a former resident in neurosurgery, was co-author, and "Treatment of Cervical-Fracture Dislocation by Anterior Interbody Fusion," on which **Dr. Dennis McDonnell,** an instructor in neurosurgery collaborated.

Dr. Ian M. Smith, a professor of internal medicine and chief of the Division of Infectious Diseases at the U. of I. College of Medicine, returned to Iowa City early in September from the Far East. At Osaka, Japan, he served as chairman of the session on combinations of active agents for the chemotherapy of bacterial diseases at the Sixth Annual Congress on Chemotherapy. He presented three research reports: "Amino Acid Metabolism in Murine Lethal Staphylococcal Infection," "Treatment Review of Experimental Mouse Peritonitis," and "Single and Combined Antibiotics in the Treatment of Pseudomonas Aeuruginosa Infections." He also served as visiting professor at the Research Institute on Tuberculosis, in Osaka, at the 11th Evacuation Hospital of the U. S. Army Medical Corps, in Japan, and at the College of Medicine at the University of Otago, in New Zealand.

Dr. Mansour F. Armaly's exhibit "Optic Disc—Visual Field—Ocular Fluid Dynamics, a Correlative Study" won the Hektoen Silver Medal for excellence in displaying original research, and the Knapp Award for an outstanding contribution to the field of ophthalmology at the annual meeting

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of the AMA in New York City, during July. Those were the sixth and seventh major awards won by the U. of I. Department of Ophthalmology at medical conventions during the past nine years. Dr. Armaly's exhibit summarized the results of two population studies he has conducted during the past 11 years on factors involved in glaucoma. They have revealed that intraocular pressure is not the best factor to test in screening populations for glaucoma. They have also shown that certain factors which had been thought to be signs of incipient glaucoma are often inherited and may occur in normal, healthy eyes.

Dr. Edward E. Mason, a professor of surgery at the U. of I., was one of five physicians who commented about the treatment of abdominal hernia in the August 25 issue of MODERN MEDICINE.

Dr. Frederick C. Blodi, head of ophthalmology at the U. of I., acted as a visiting professor at Yale University Medical School, September 3-6. He lectured, conducted clinics and led ophthalmology rounds.

Dr. George L. Baker, an assistant professor of pediatrics at the U. of I., has designed and helped to build an intensive-care nursery for critically-ill infants who must be transferred to University Hospitals, Iowa City. It is the first of its kind. Developed in cooperation with the State Services for Crippled Children, at the University, it has space for two infant patients and room enough for medical personnel to provide whatever care they may need. Besides two incubators, it has oxygen-administration equipment, a suction aspirator, a heart-rate monitor, air conditioning, and a gasoline-powered generator. A back-up system allows care to continue despite a failure of the main power source. Resuscitation equipment, drugs and intravenous fluids are also carried by the unit. There is a two-way radio with which to obtain road information and to get help from the Iowa Highway Patrol in case the vehicle breaks down, and with which to request special assistance upon arrival.

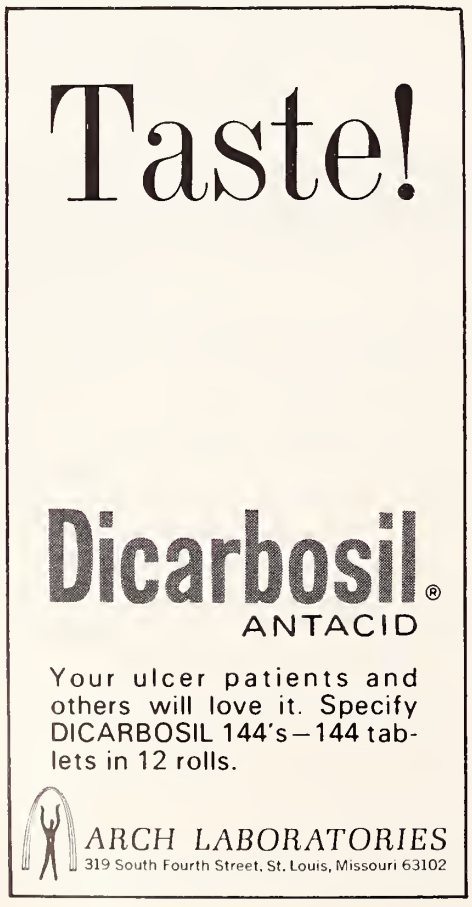
It has been in operation for about a year on an experimental basis, but since July it has been a part of the regular service of University Hospitals. It serves an area within a 90-mile radius of Iowa City because the van can reach any point in that area within 2½ hours. Over greater distances, air transport is superior. Of the 20,000 infants born within 50 miles of Iowa City in any year, about 1,150 would benefit from the special services available at University Hospitals, Dr. Baker says. A driver and a physician are on call 24 hours per day for service with the unit, and a nurse may be called upon to make trips, too. The equipment was used 50 times between September, 1968, and July 1, 1969.

At the October 1 meeting of the Johnson County Medical Society, held at the University Athletic Club just outside of Iowa City, **Dr. William W. Bonney,** a recently arrived faculty member in urology, discussed "The Future of Renal Transplantation at the University of Iowa."

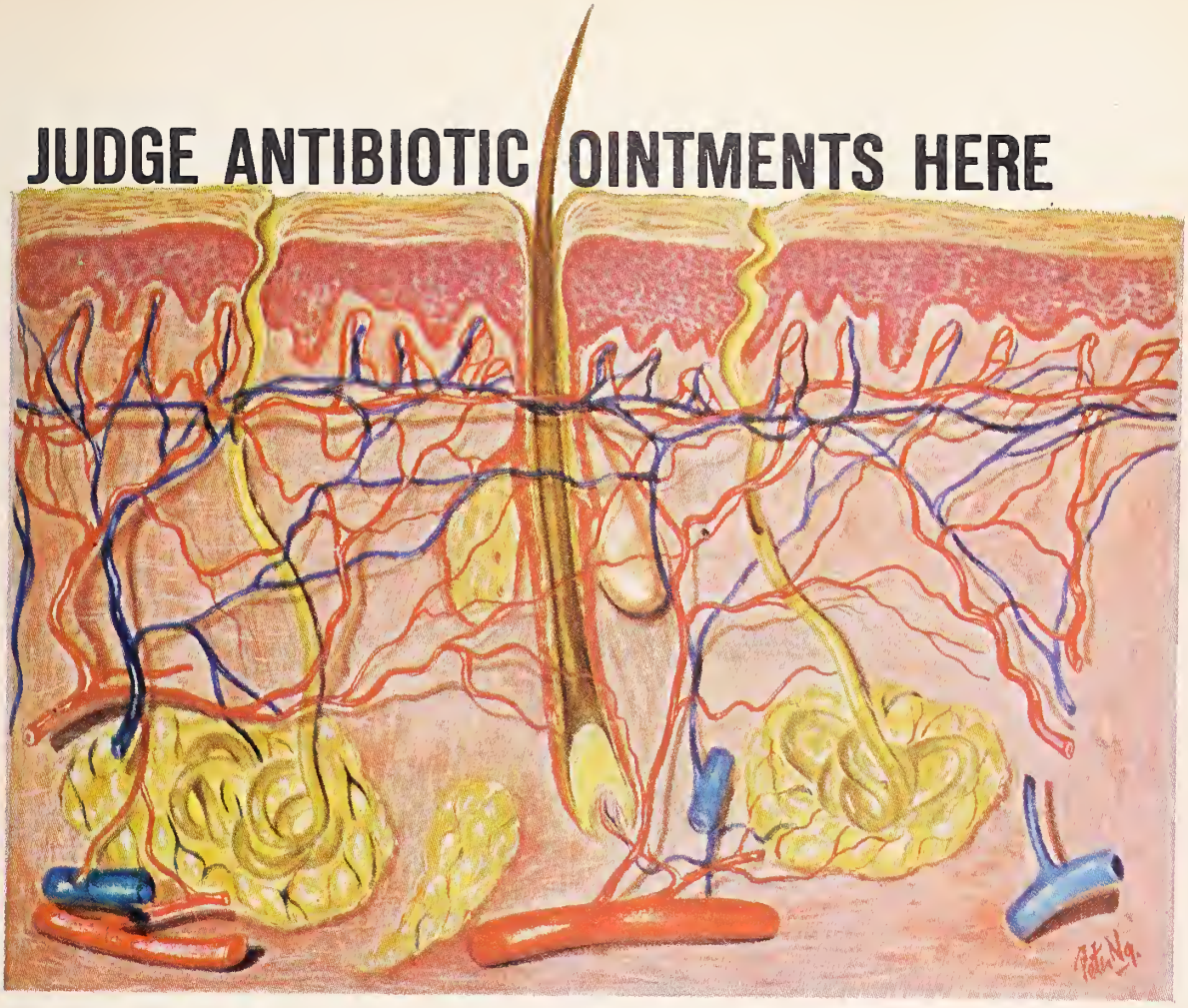
The Polk County Medical Society and its Woman's Auxiliary held their annual fall party at the Wakonda Club, in Des Moines, on September 17. Dance music and entertainment were provided by the West Des Moines Kiwanis Dixieland Band.

A total of 52 doctors of medicine participated in the disaster drill which was conducted in Des Moines on June 15, either at the site of the "disaster" or at the various hospitals. **Dr. Walter Eidbo** headed the committee that arranged for the exercise.

Dr. William C. Shinkle has moved from Des Moines to Fort Scott, in his home state of Kansas. **Drs. Clifford Losh** and **John Fatland,** with whom Dr. Shinkle practiced urology, have dissolved the



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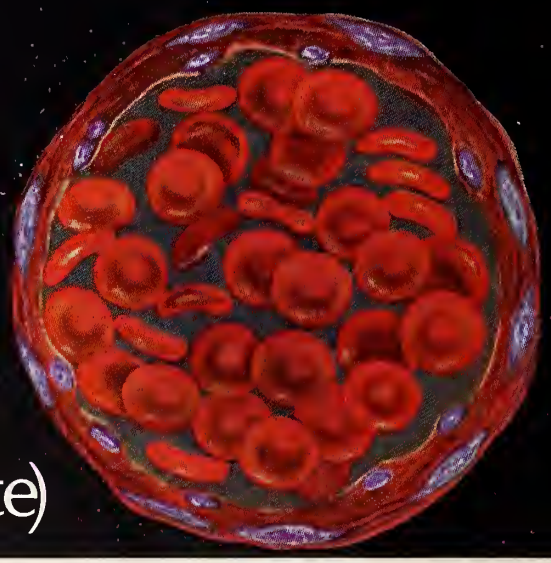
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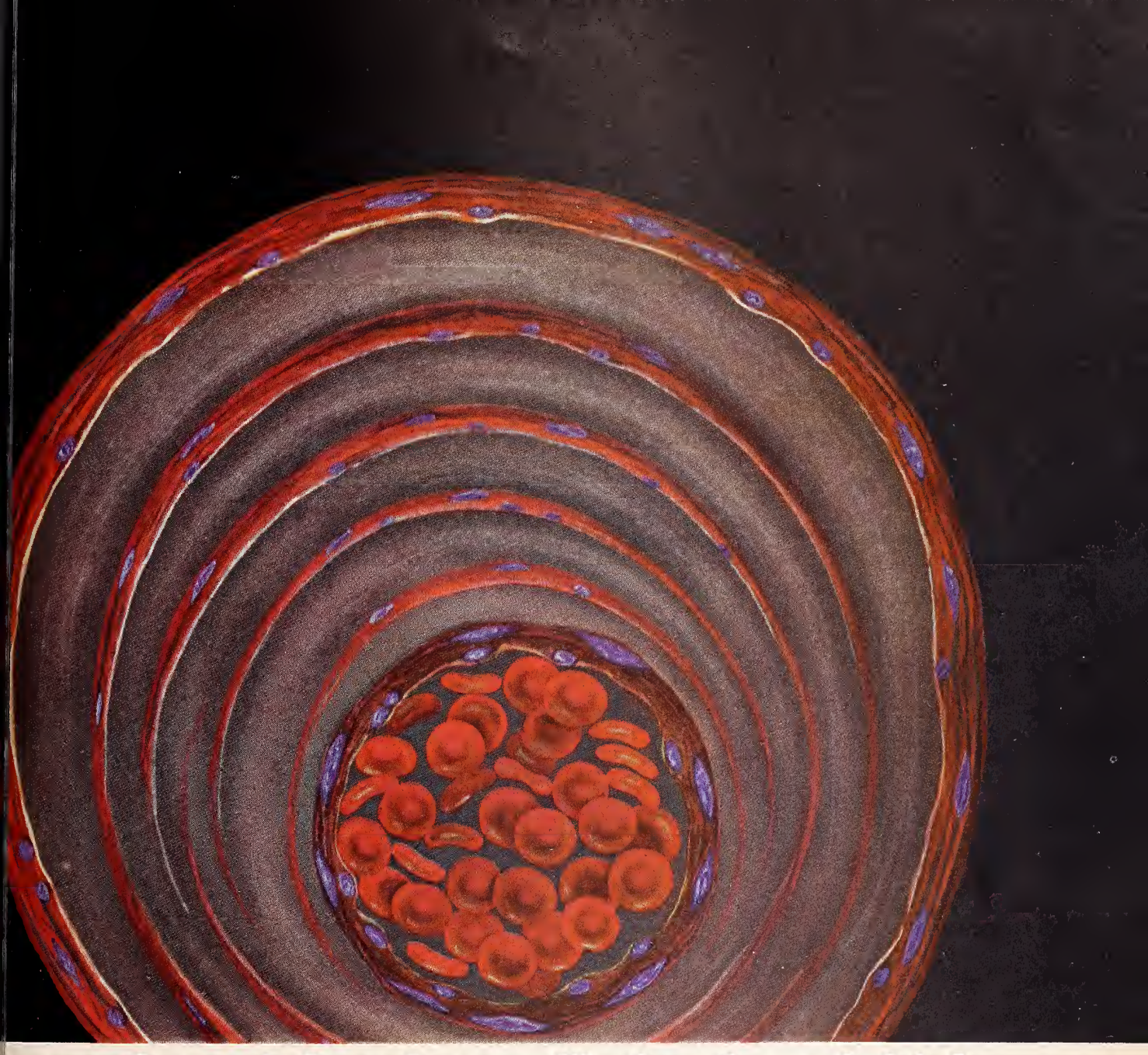
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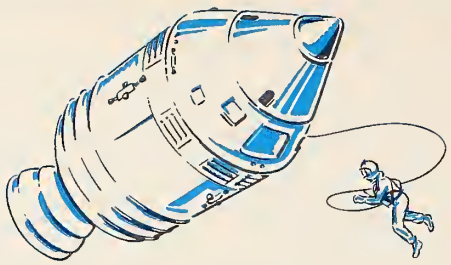
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Dr. John W. Eckstein, a professor of internal medicine at the U. of I., has been named associate dean of medicine for Veterans Hospital affairs.

Dr. H. Stanley Thompson, an assistant professor of ophthalmology at the U. of I. College of Medicine, has been given a Research Career Development Award by the USPHS. His principal interests are visual difficulties resulting from strokes and brain tumors. He took his M.D. at the University of Minnesota, interned in Iowa City, and completed specialty training there in 1966.

On September 16 **Dr. Julius S. Conner,** director of the Des Moines-Polk County Health Department, addressed a meeting of the Wright County Medical Society. "To the predominantly rural practitioners of Wright County, the Des Moines medical care facilities, planning problems and fragmentation of health care of the poor were all particularly interesting," **Dr. C. P. Hawkins,** of Clarion, reports.

Jo Ellen Hoth (nee Maly), M.D., who opened her general practice in Burlington last January, addressed the National Association of Bank-Women, Inc., at the Roosevelt Hotel, Cedar Rapids, on September 12. Most of her address consisted of reminiscences concerning 13 months that she spent serving the Sioux Indians on a reservation near Eagle Butte, South Dakota, just after finishing a two-year GP internship at Broadlawns Hospital, Des Moines.

On September 15 **Dr. Richard Wilker** returned to the Creston Medical Clinic staff after two years in Army uniform. He was in Vietnam until shortly before his release from military service.

According to a feature article in the September 14 issue of the DAVENPORT DEMOCRAT, St. Luke's Hospital, Davenport, is the only private hospital in Iowa where investigators are participating in trials of L-Dopa for Parkinson's Disease. (University Hospitals, Iowa City, also has a part in the program.) The Davenport work is being conducted by **Drs. E. A. Motto, Erling Larson, David VanHecke, Robert Towle, A. B. Hendricks** and **Byron Rovine.**

Dr. John H. Faust announced on August 27 that he intended leaving Manson on September 15 to begin work in the student health service at St. Olaf College, in Northfield, Minnesota. He has practiced in Manson since 1938, and prior to that he was in Huron, South Dakota, and in Tama and Clarion, Iowa, for brief periods.

Dr. J. T. Worrell, of Keosauqua, was reelected to a three-year term on the Van Buren Community School Board, September 8.

Dr. Jesse Landhuis, of Fort Dodge, was the principal speaker at the CROP kick-off meeting in Ocheyedan on September 6. (The initials stand for the Christians' Rural Overseas Program, which thus far this year has sent more than $1,500,000 worth of food to hungry people aboard.) Dr. Landhuis told of his experiences while serving with the Vietnam Christian Service from 1966 to 1968.

Dr. Arthur Ames, of Storm Lake, has been appointed to succeed the late **Dr. Rusl P. Noble,** of Alta, as the Buena Vista County medical examiner.

Dr. Harry D. Harper, Jr., medical director of the Lee County Mental Health Center, at Fort Madison, was invited to address the ninth annual meeting of Medical Superintendents of Mental Hospitals, in Houston in mid-September. His is said to be the only community mental health center in which the staff, as a part of its routine, gets in touch with hospitalized mental patients prior to their release, in order to smooth the way for their reentry into family and friend relationships.

Twenty-three physician-and-wife couples started on a people-to-people good-will mission on September 17 which will take them to Belgium, Sweden, Russia, Hungary, Czechoslovakia and Germany and back home again during a three-week period. They include: **Dr. and Mrs. J. W. Agnew,** of Bettendorf; **Dr. and Mrs. G. H. Ashline,** of Keokuk; **Dr. and Mrs. W. S. Baltzell,** of Charles City; **Dr. and Mrs. W. J. Balzer,** of Davenport; **Dr. and Mrs. Glenn C. Blome,** of Ottumwa; **Dr. and Mrs. Melvin G. Bourne,** of Algona; **Dr. and Mrs. Abner Buresh,** of Lime Springs; **Dr. and Mrs. Paul T. Cash,** of Des Moines; **Dr. and Mrs. J. W. Castell,** of Fairfield; **Dr. and Mrs. Marcus B. Emmons,** of Clinton; **Dr. and Mrs. W. C. Friday,** of Burlington; **Dr. and Mrs. W. G. Kuehn,** of Clarinda; **Dr. and Mrs. Scott Linge,** of Fayette; **Dr. and Mrs. J. L. Monahan,** of Clinton; **Dr. and Mrs. A. L. Murphey,** of Fredericksburg; **Dr. and Mrs. Donald F. Rodawig, Sr.,** and **Dr. and Mrs. Donald F. Rodawig, Jr.,** all of Spirit Lake; **Dr. and Mrs. Clark R. Rominger,** of Waukon; **Dr. and Mrs. J. E. Sinning,** of Marshalltown; **Dr. and**

Mrs. Kirk H. Strong, of Fairfield; **Dr. and Mrs. J. H. Sunderbruch,** of Davenport; **Dr. and Mrs. Ralph L. Wicks,** of Boone. **Dr. and Mrs. Cecil W. Seibert,** of Waterloo, helped to organize and are leading the party.

Dr. John R. Scheibe, a Bloomfield surgeon, was unopposed in seeking a second term as a member of the Davis County School Board on September 8.

On September 9, **Dr. Cecil Seibert,** a Waterloo obstetrician and gynecologist and the immediate past-president of the IMS, was the guest speaker at a meeting of the Fayette County Medical Society, in Oelwein.

At its annual meeting in Des Moines on September 10, the Iowa Health Council, formerly the Iowa Interprofessional Association, announced a statewide conference on drug abuse to which more than 1,000 teachers, students and clergymen will be invited. It will take place at the Des Moines Veterans Memorial Auditorium on October 8. **Mr. J. W. Myers,** a Muscatine hospital administrator, became the new president of the group, succeeding **F. D. Wertman, D.V.M.,** of Des Moines. **R. Earl Feldman, D.D.S.,** of Ames, was chosen as president-elect; **Christian E. Radcliffe, M.D.,** a professor of dermatology at the U. of I., was elected vice-president; and **Mr. Donald L. Taylor,** of Des Moines, executive vice-president of the IMS, was reelected secretary-treasurer.

Drs. W. S. Markham and **R. D. Harris,** of Harlan, have undertaken to provide medical service to people of the Avoca area five mornings each week. The arrangements were made by the Avoca Rotary and Community Clubs.

On October 15, **Dr. Elmer S. Groben** will close his general practice in Columbus Junction, and on October 20 he will begin work at 2404 Towncrest Drive, Iowa City.

A portrait in oils of **Dr. Walter A. Anneberg** will be commissioned by the Rotary Club of Carroll, and when it has been completed it will be displayed in the new St. Anthony Hospital there, it was announced on September 8.

Linn County, Iowa, is the site of a pilot project designed to aid women who have undergone mastectomies. Called "Rearch for Recovery," it was developed several years ago in New York as an effort to forestall physical and psychological problems. It will be conducted by the local chapter of the American Cancer Society, Iowa Division, Inc., but physicians will be asked to recommend patients to participate in it. **Dr. R. E. Weland,** of Cedar Rapids, outlined it early in September at a meeting of the Linn County Medical Society.

Mr. Gerald L. Buckles, of West Des Moines, who had been a field secretary for the IMS for 13½ years, resigned last month and accepted a position with Triple-Eye Corporation, of Des Moines. It is a private investment company that is expanding into various franchising programs and has a controlling interest in the First National Bank of Oelwein. Mr. Buckles is to travel throughout Iowa for Triple-Eye, and is also to assist Meditech Centers, of Des Moines, in providing computer services. Both Triple-Eye and Meditech Centers are enterprises with which **John E. Gustafson, M.D.,** of Des Moines, is identified.

Radiology Conference at U. of I.

A continuing education conference on radiology will be held at The University of Iowa Health Center on Saturday and Sunday, November 8-9.

Guest faculty members will be Dr. Alexander Gottschalk, professor of radiology at the University of Chicago and director of the Argonne Cancer Research Hospital, and Dr. Phillip E. S. Palmer, professor of radiology at the University of Pennsylvania and formerly chairman of the Department of Radiology at the University of Cape Town, South Africa.

The conference will open at 12:30 p.m. Saturday. Afternoon sessions will include discussions of radiation therapy of urologic neoplasms, combined treatment of head and neck neoplasms, current trends in lymphoma staging, B-scan ultra sound of the abdomen, intestinal histoplasmosis, panoramic radiology of the mandible, angiography of the celiac artery and its branches, and the interrelationship between diagnostic radiology and nuclear medicine.

A film reading session and a talk on tropical diseases of interest to the Iowa radiologist will be held Sunday morning. The U. of I. conference is sponsored by the Department of Radiology and the Iowa Radiological Society.

Conference registration forms can be obtained by writing: Director, Office of Medical Education, The University of Iowa, 100 Westlawn, Iowa City, Iowa 52240.

COMING CONFERENCES AT THE UNIVERSITY OF IOWA

December 4-5, Obstetrics and Gynecology.

December 5-6, Cardiac and Respiratory Disease Conference.

February 10-13, Refresher Conference for General Practitioners.

Deaths

Dr. Rusl Parker Noble, 63, who had practiced for the past 24 years in Alta, died there on August 15. He was a 1930 graduate of the U. of I. College of Medicine, and he practiced in Norway, Iowa, and in Cherokee before settling in Alta. He served in the Air Corps during World War II.

Dr. James O. Cromwell, 63, a psychiatrist and director of state mental institutions since 1957, died at a Des Moines hospital on August 16 after suffering a heart attack at his home. He served as superintendent of the state mental hospital in Blackfoot, Idaho and, for just a year, as superintendent of the State Mental Health Institute at Independence, Iowa, before taking charge of the entire mental-hospital system. He was a 1931 graduate of the U. of I. College of Medicine.

Dr. George Armitage, 57, who practiced in Osceola for 28 years, died there on August 12. He was a 1936 graduate of the Northwestern University Medical School.

Dr. Fern N. Cole, 69, a 1926 graduate of the U. of I. College of Medicine who practiced for two years in Denver, Colorado, and served as an instructor in internal medicine at his alma mater for about three years, practiced in Iowa Falls from 1932 until he suffered a heart attack about a year ago. He died at the hospital there on August 11.

Dr. Elwood Paul Russell, 68, a surgeon who has practiced in Burlington since 1938, died at the Burlington Hospital on September 14, nine days after suffering a stroke at his home. He took his medical degree at the U. of I. in 1931 and remained there for his internship and residency. He was appointed to the State Board of Medical Examiners in 1965, and was secretary of the Board at the time of his death.

Dr. Carl F. Brubaker, 78, who practiced medicine at Corydon for 40 years, died at the hospital there on September 9. He moved his office to his home and tried to reduce his workload in 1958, but he was still serving patients until quite recently.

Dr. Verl A. Ruth, 85, a Des Moines orthopedic surgeon and a Life Member of the IMS, died at a Des Moines hospital on September 3. He took his medical degree at the New York University College of Medicine in 1916.

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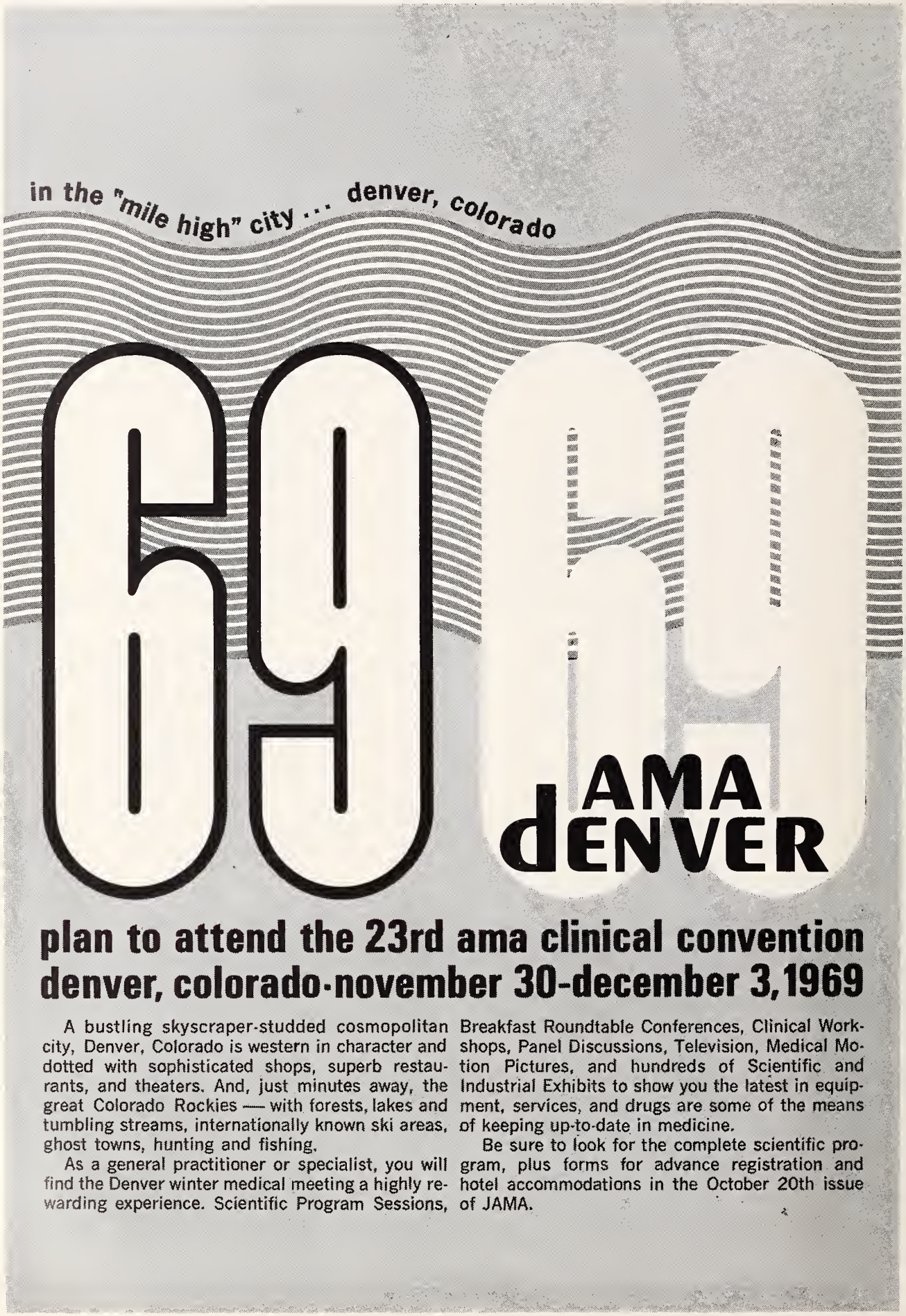
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Be sure to look for the complete scientific program, plus forms for advance registration and hotel accommodations in the October 20th issue of JAMA.

LIST YOUR WANTS

No charge is made for the ads of members, wives of deceased members of the Iowa Medical Society or physicians seeking Iowa locations; for others the cost is $1.00 per line, $5.00 minimum per insertion. Copy for ad must be received by the seventh of the month for the following issue. Send to JOURNAL OF THE IOWA MEDICAL SOCIETY, 1001 Grand, West Des Moines 50265.

OFFICE SPACE AVAILABLE—New building being constructed at 1908 Grand Avenue, West Des Moines. Completion date—May or June, 1970. 5,100 square feet, 160 feet in length and 32 feet wide, ground floor level with walkways on both sides. Ideal for doctor's office or clinic. Will design interior to suit tenant. Double parking available on front side of building. For further information call or write Frank J. Santo, 2422 46th Street, Des Moines, Iowa 50310.

WANTED—A progressive Hospital-School for the mentally retarded has an opening for a physician who is eligible for licensure in Iowa. This position is available for a new graduate, or a physician with practice experience, Board eligible and/or Board certified. Possibilities exist for research, medical student teaching, as well as participation in a challenging medical and treatment program. Qualified applicants to be employed at a salary range between $20,160 and $30,360. For further information and application, contact: Mr. Barry A. Wills, Personnel Officer, Woodward State Hospital-School, Woodward, Iowa 50276.

The Adolf Gundersen Medical Foundation of La Crosse, Wisconsin, announces the establishment of a fully accredited three-year residency training program in Internal Medicine at Lutheran Hospital, La Crosse, Wisconsin. The hospital staff consists of a 65-man multiple specialty group with offices in a connecting modern clinic building. Eighteen fully qualified internists serve as a nucleus of the teaching program. All staff men are full-time and salaried. This clinic-hospital complex serves as a referral center for a 100-mile radius. The hospital has a 375-bed facility. An intensive in-house training program is supported by weekly guest consultants. Stipend: $600 to $700 per month, plus housing and miscellaneous. Located in a progressive community with expanding university and private college. Population 50,000. Excellent school and recreation facilities. Applications being considered at all levels. Write: Edwin L. Overholt, M.D., Director, Medical Education and Research, Gundersen Clinic, Ltd., 1836 South Avenue, La Crosse, Wisconsin 54601.

GENERAL PRACTITIONER NEEDED: Practice with complete freedom of action in a rural atmosphere? Office next to pharmacy, ready for occupancy, no unseen strings. Moville, Iowa, 15 miles east of Sioux City offers just such a chance. Contact Moville Community Development Association, Inc., Moville, Iowa.

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WANTED—Dermatologist and orthopedist as soon as possible. Internists with interest in hematology or gastroenterology summer of 1970 or 1971. Multi-specialty group. Iowa's oldest organized clinic with younger third generation predominant. Great family community of 32,000 serving very active referral area of 300,000. Generous income and benefits, unusual time off privileges. Early partnership. Contact Administrator, Park Clinic, Mason City, Iowa 50401

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WANTED: Staff physician for Student Health Service at Iowa State University. Contact Gail Proffitt, M.D., Director, 515-294-5801 or write to Iowa State University Health Service, Ames, Iowa 50010.

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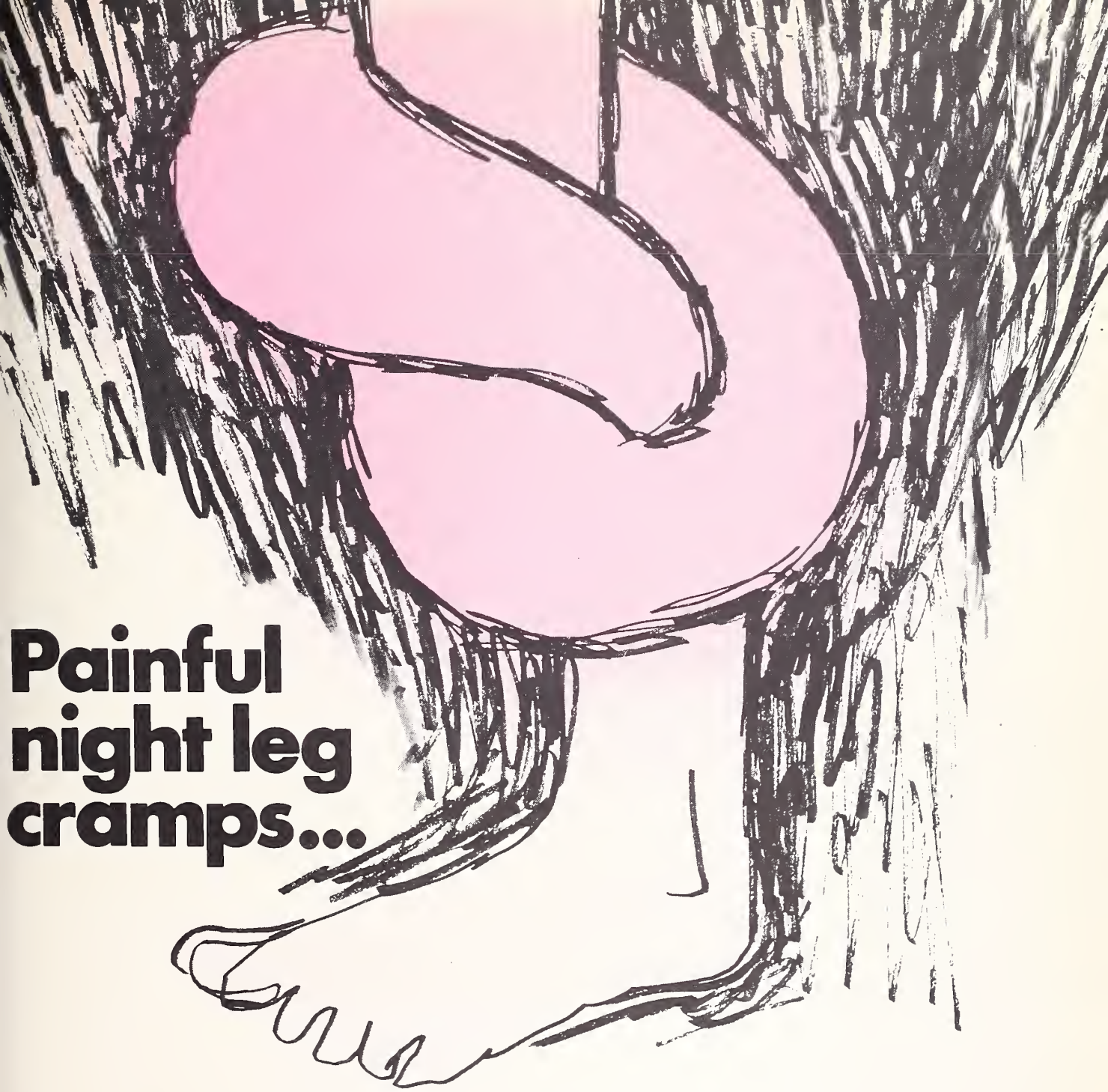
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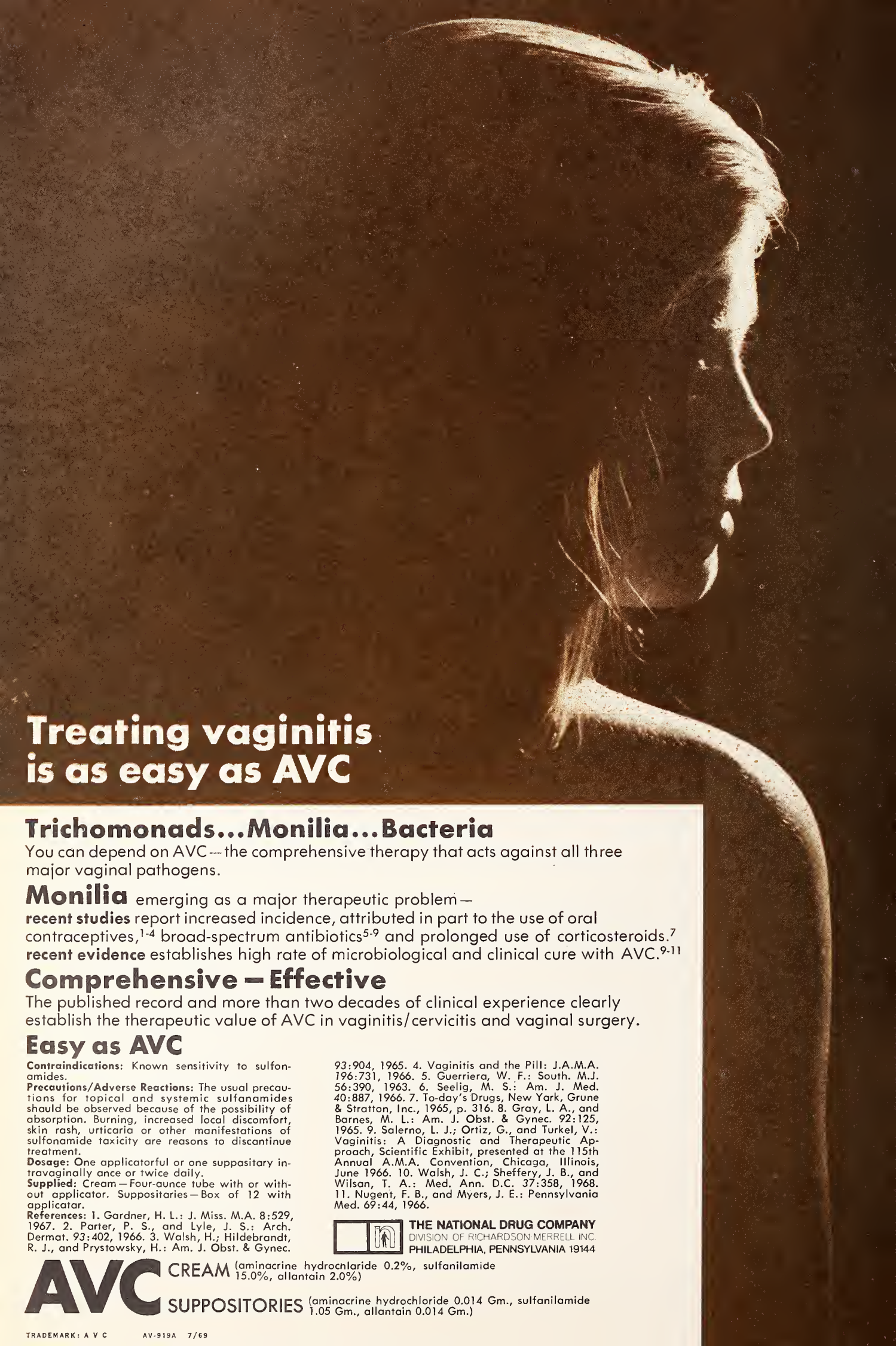
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References: 1. Gardner, H. L.: J. Miss. M.A. 8:529, 1967. 2. Parter, P. S., and Lyle, J. S.: Arch. Dermat. 93:402, 1966. 3. Walsh, H.; Hildebrandt, R. J., and Prystowsky, H.: Am. J. Obst. & Gynec. 93:904, 1965. 4. Vaginitis and the Pill: J.A.M.A. 196:731, 1966. 5. Guerriera, W. F.: South. M.J. 56:390, 1963. 6. Seelig, M. S.: Am. J. Med. 40:887, 1966. 7. To-day's Drugs, New Yark, Grune & Stratton, Inc., 1965, p. 316. 8. Gray, L. A., and Barnes, M. L.: Am. J. Obst. & Gynec. 92:125, 1965. 9. Salerno, L. J.; Ortiz, G., and Turkel, V.: Vaginitis: A Diagnostic and Therapeutic Approach, Scientific Exhibit, presented at the 115th Annual A.M.A. Convention, Chicaga, Illinois, June 1966. 10. Walsh, J. C.; Sheffery, J. B., and Wilsan, T. A.: Med. Ann. D.C. 37:358, 1968. 11. Nugent, F. B., and Myers, J. E.: Pennsylvania Med. 69:44, 1966.

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- Early Recognition and Prompt Evaluation of Spinal Deformity—Walter P. Blount, M.D.
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- One Year's Experience in a Community Hospital Coronary-Care Unit—L. W. Swanson, M.D.

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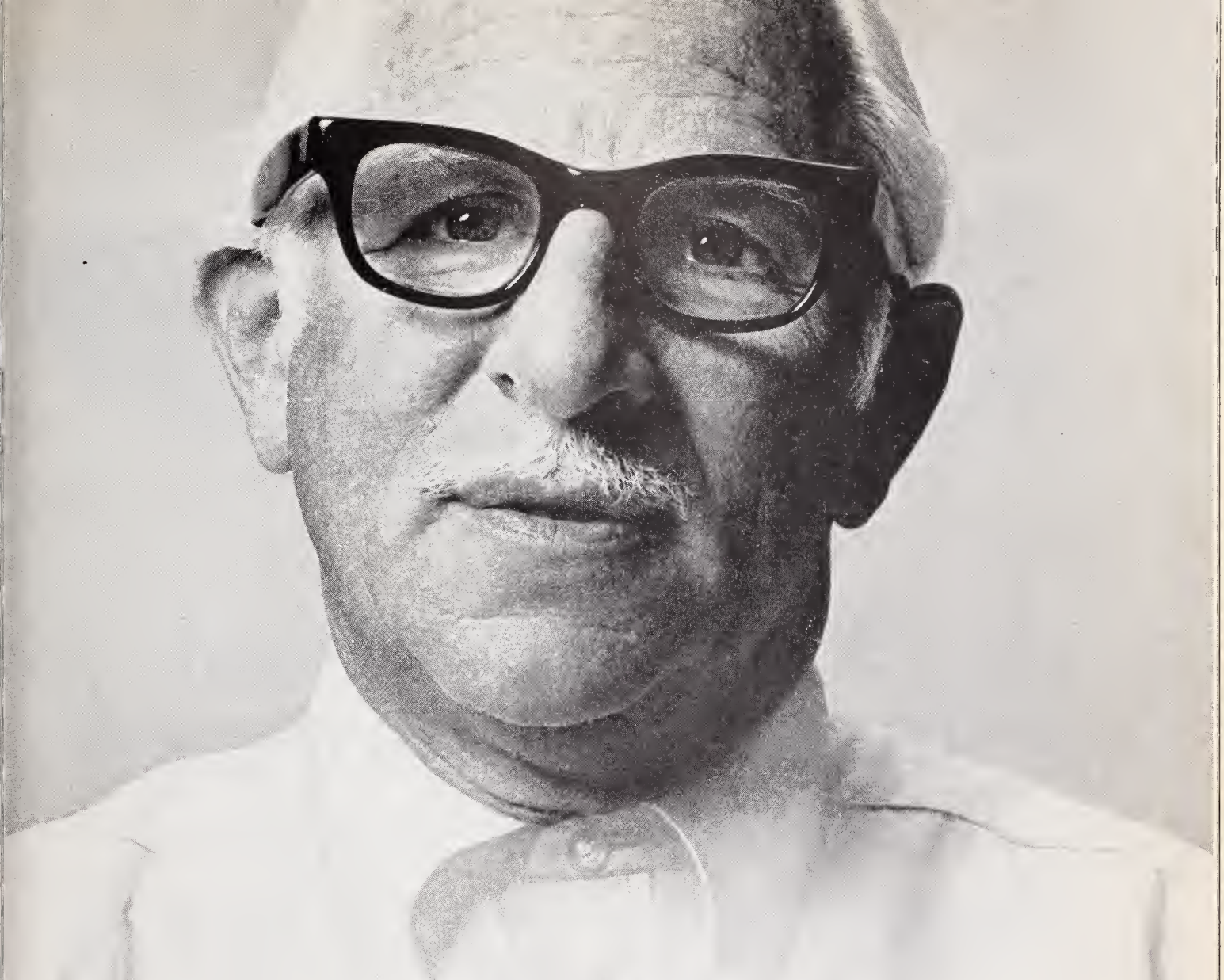
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cautions: Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken.

In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

Side Effects: Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes; a rare case of exfoliative dermatitis has been reported. Photosensitivity; onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose related. Transient increase in urinary output, sometimes accompanied by thirst (rare). Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth—dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy.

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The Month in Washington

Washington, D. C.—Health, Education and Welfare Secretary Robert Finch has asked a special Task Force on Medicaid to examine and make recommendations on proposals for a sweeping national health program. The Task Force, headed by Walter J. McNerney, president of the Blue Cross Association, is scheduled to issue a report about the first of the year.

After referring to a proposal for universal health insurance endorsed by many governors at the National Governors' Conference, Mr. Finch told Mr. McNerney in a letter: "I would like specifically to request that the Task Force consider, along with its other deliberations on Medicaid and related programs, what directions and initiatives you feel the HEW Department should pursue in this area." According to Mr. McNerney, one phase of the study would include the extension of Medicare to persons of all ages—roughly the national compulsory health plan backed by Walter Reuther of the United Auto Workers and his Committee of 100 for National Health Insurance. However, he also said that all types of mass plans would be studied, including the health insurance tax credit proposal endorsed by the American Medical Association.

The rapidly rising costs of Medicare and Medicaid have brought the issue to the forefront. The Administration said older people who enter hospitals after January 1 will have to pay for an additional $8 of their hospital bills as a consequence of higher costs. The increase is required by law. The benefit-cutback results from an adjustment of the portion of the hospital bill for which a Medicare beneficiary is responsible if these costs have risen substantially.

* * *

After a two-year study, Sen. Abraham Ribicoff (D., Conn.), a former HEW Secretary, said he had reached the conclusion that the federal health effort "is a planless conglomeration of programs administered by more than a score of agencies and departments." Federal health spending, "instead of supporting programs to provide for the health of the people . . . is maintaining a cumbersome, disjointed bureaucracy that even key government officials have difficulty managing," he told the Senate. "Instead of eliminating problems, (they) may be adding to factors such as rising costs, limited access to care and the fragmented organization of health services."

"There are so many programs administered in such bureaucratic confusion that no one—not the HEW Department, not the Bureau of the Budget nor any private organization—was able to tell the Subcommittee even how many programs there are."

* * *

The American Medical Association told Congress that drug-dependent persons should be treated as patients rather than as criminals. In testimony before the Senate Juvenile Delinquency Subcommittee, Henry Brill, M.D., chairman of the AMA Committee on Alcoholism and Drug Dependence, said physicians are concerned over legislation before the Subcommittee proposing harsher penalties for persons unlawfully possessing drugs for their personal use.

"Mere possession for personal use of depressant and stimulant drugs having a legitimate medical usage should not constitute an offense," Dr. Brill said. "The degree of social hazard and the reasons for having the drug should be taken into account."

"With respect to the entire section on offenses and penalties, we propose an amendment to direct courts to appoint a panel of medical experts in each case where a drug abuser is brought to trial on a charge of illegal possession and where, in the court's opinion, medical treatment may be indicated. The panel would make a determination as to whether the defendant has a medical problem associated with his abuse of drugs—a physical or psychological disability or drug dependence.

"If medical treatment is indicated, the panel would recommend to the court the type of treatment needed—that is, general-medical or psychiatric care; in-patient hospitalization or clinical treatment; group therapy; half-way house etc. If medical treatment is not indicated, or if measures in addition to medical treatment are needed, the court would then consider the non-medical handling of the case."

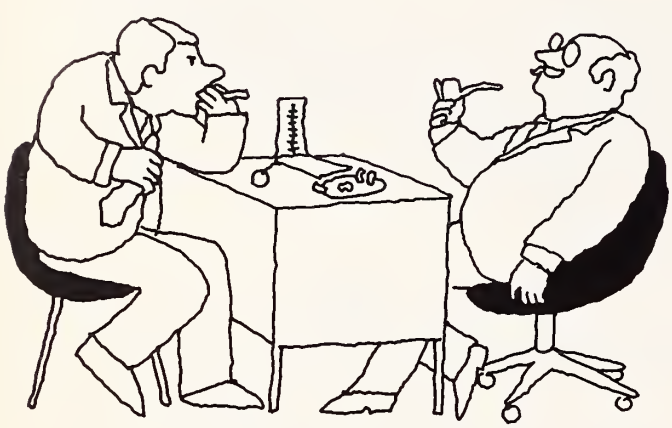
Under the proposed AMA changes, the HEW Department, rather than the Justice Department, would control the official classification of drugs, and the research and public education programs in the field. Control provisions would focus on manufacturers and distributors, rather than on physicians.

"We recommend that, as a matter of public policy, Congress explicitly charge the HEW Department with the major responsibility for research on all aspects of drug abuse and dependence other than enforcement," said Dr. Brill.

The AMA supports provisions in the legislation "which would allow researchers to withhold names of subjects, and to handle controlled drugs without prosecution: the fear of such disclosure and

(Continued on page 994)

The Apprehensive Hypertensive



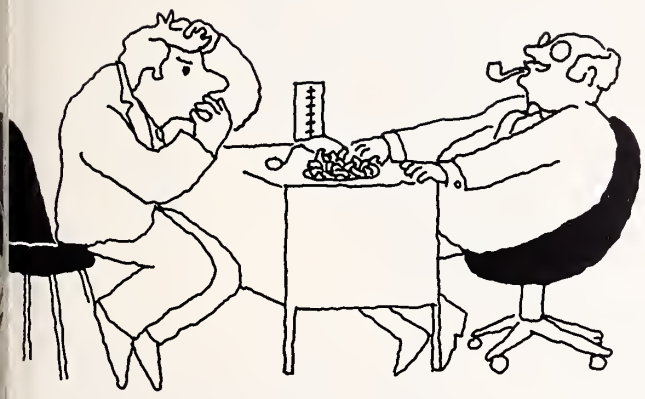


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The Month in Washington

(Continued from page 991)

of prosecution, especially on state and local levels, has served to hamper needed research in the past."

* * *

The American Medical Association supported legislation to require foreign medical graduates trained in this country to spend two years of residence in their native land or land of previous residence before becoming eligible to apply for U. S. citizenship.

C. H. William Ruhe, M.D., director of the AMA Division of Medical Education, said the measure would strengthen the Exchange Visitor Program. However, Dr. Ruhe suggested that the provision be strengthened to require that citizens of less-developed nations return to their home countries rather than their latest nation of residence. He cited the example of citizens of India who come to the United States from England.

"If such participants are required merely to return to England, there will be no alleviation of the brain drain from India," he told the House Judiciary Subcommittee on Immigration.

* * *

The HEW Department's Children's Bureau was broken into separate health and welfare units.

Under the reorganization:

• Health programs administered by the Children's Bureau were transferred to the Health Services and Mental Health Administration (HSMHA) where they will form a new organizational unit. The programs involved are those for maternal and child health services, for treatment of crippled children, for maternity and infant care, and for the health of school and pre-school children.

• The Children's Bureau as such goes from the Social and Rehabilitation Service to the Office of the HEW Secretary, where it becomes part of the new Office of Child Development. The Bureau will maintain its role of leadership and coordination of child and parent programs throughout the Department. It will also continue to investigate and report on all matters pertaining to the welfare of children.

• Community services administration is established in the Social and Rehabilitation Service to consolidate the administration of social service programs for children and adults. These include programs located previously in the Children's Bureau and in other agencies of the Social and Rehabilitation Service.

"I expect the Office of Child Development and the Children's Bureau to be vigorous advocates of the interests of children," HEW Secretary Robert Finch said. "They will work directly with public and private agencies to stimulate improvements in the availability and quality of services to children and parents, and to work with all agencies of HEW."

Secretary Finch said that maternal and child health programs will be strengthened by their placement in HSMHA. "All of the health programs administered by HSMHA should benefit from this new and closer relationship," the Secretary said.

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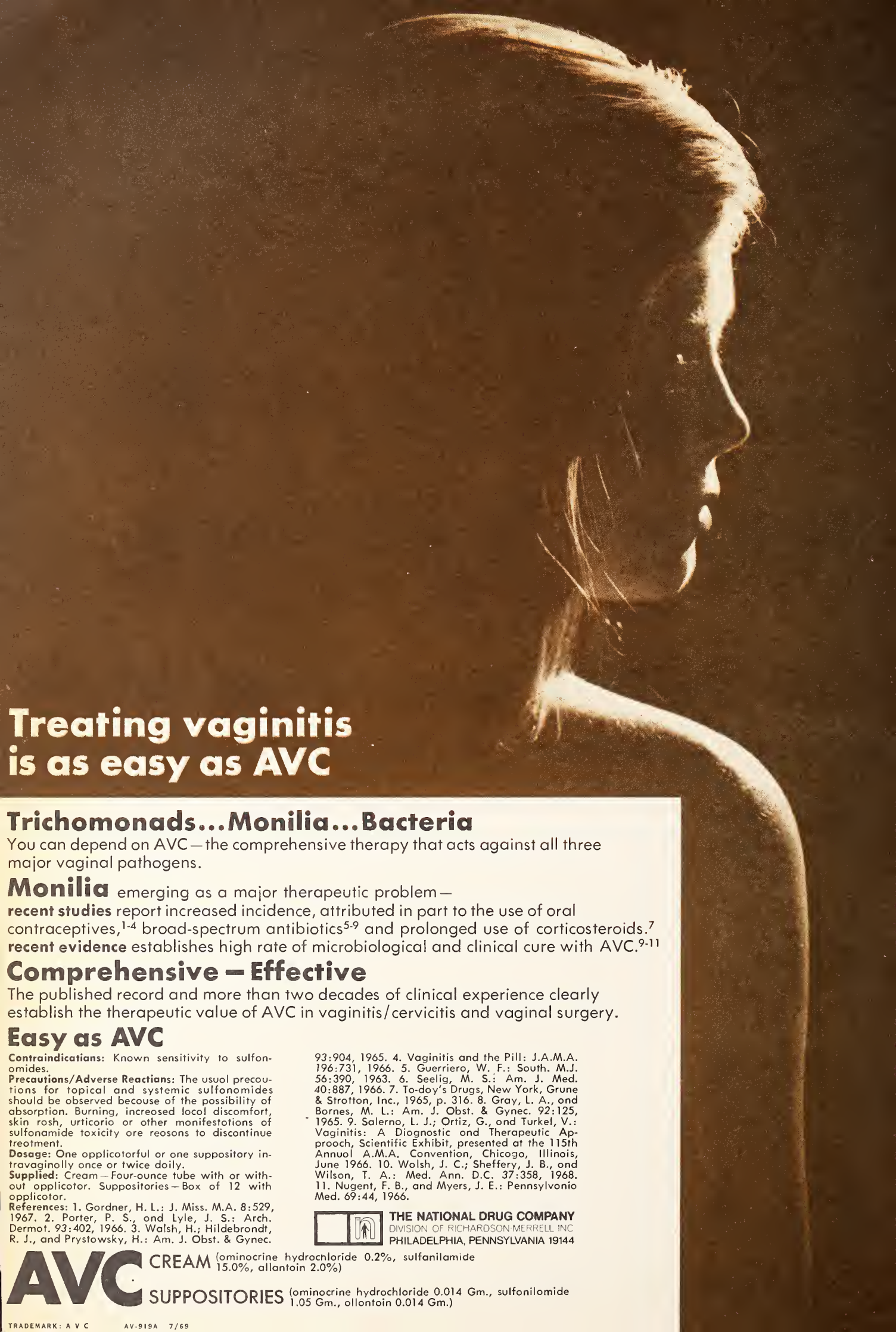
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Health Planning in Iowa

HOMER L. SKINNER, M.D.
Carroll

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(1) the choice of a right end and aim of action

(2) the discovery of the actions which are a means toward it.

This insight can surely be applied to planning, for the word *plan*, itself, can be defined either as an end or as a means. A plan can be an end or aim of action, e.g., plans for the future, long-range plans. But a plan can be a means to attain an end. When used in the latter sense, a plan can be active—a scheme of action, e.g., battle plans, building plans—or a plan may be passive—a design or arrangement of things, e.g., a plan for seating guests, a framework upon which to build. So one can paraphrase Aristotle by saying that success consists in the choice of the right plan (goal), and the discovery of the plans (means—active and passive) for achieving it. This is all quite involved, and any resultant confusion is due in large part to the propensity of the English language to assign many different meanings to a single word. The Greeks, on the other hand, even had three words for the one English word *love!* But it is important at the outset to define *planning* and the different senses which the word can have, if health planning and the organizations which support it are to be successful.

HEALTH PROFESSIONS AND HEALTH-PLANNING AGENCIES ALL HAVE SAME AIM

Medicine is an ancient and honorable profession. Its aim and end and goal has been and is to relieve suffering. This goal, everyone instinctively recognizes, is the right choice for medicine, and the doctor is honored for the service he performs. The discoveries made during the past 100 years have continued to mount in a wave of new knowledge which no one individual can hope to master. They have led to technologic advances in atomic power and the growth of the computer sciences. Who can cope with all this? No one person, certainly, and no one profession. Of necessity, a whole new spectrum of health professionals has arisen. Nurses and dietitians, x-ray technicians and physiotherapists, laboratory technicians and others have had to be trained if medicine were to achieve its aim and goal. So various schools have been established to educate those who want to give service in the medical field; and numerous opportunities have been opened so that many could use their talents in various paramedical careers. The position of the nurse in this spectrum has been a special one, and it continues to be so. Knowledgeable, dedicated, caring nurses are truly the bulwark and firm support of medicine. Tender loving care is not just a catch phrase; it designates a type of attention that is essential if medicine is to give the service it must, and if it is to remain the art that it is.

Even so, the growth of medicine has been topsy-turvy, and until recently little thought was given to setting its house in order. That is where health planning came in—not to change the goal, but to bring order to the efforts being made at achieving it. The end and aim and goal of health planning is the same as that of medicine—to relieve suffering. This should be clearly understood, even if a concerted effort is presently being made to involve the consumer —the non-professional recipient of health services—in its management. Health planning can never be static, can never be finished, can never be dormant. It must be dynamic, continuing and ever-growing, or it will defeat its own purpose.

HEALTH-PLANNING AGENCIES HAVE DIFFERING MECHANISMS

What about the means? Should a set of battle plans be drawn up for an attack upon the problems that are everywhere evident; or should a framework be designed so that everything will fit nicely into place? Both approaches should be used. In fact both approaches *must* be used. A paradox of human nature underlies this necessity, a paradox capsuled in the gospel story of Martha and Mary. Which is better? To do, or to be? This polarity cannot occur in its starkest form, for although life is action, life is thought, too, and although a person may prefer one to the other (life is also feeling), the other can never be completely excluded. Thoughtless activism is fatal; actionless thought is sterile. Seldom is the mean achieved, however; and in planning, the emphasis may be placed more heavily either on action or on design.

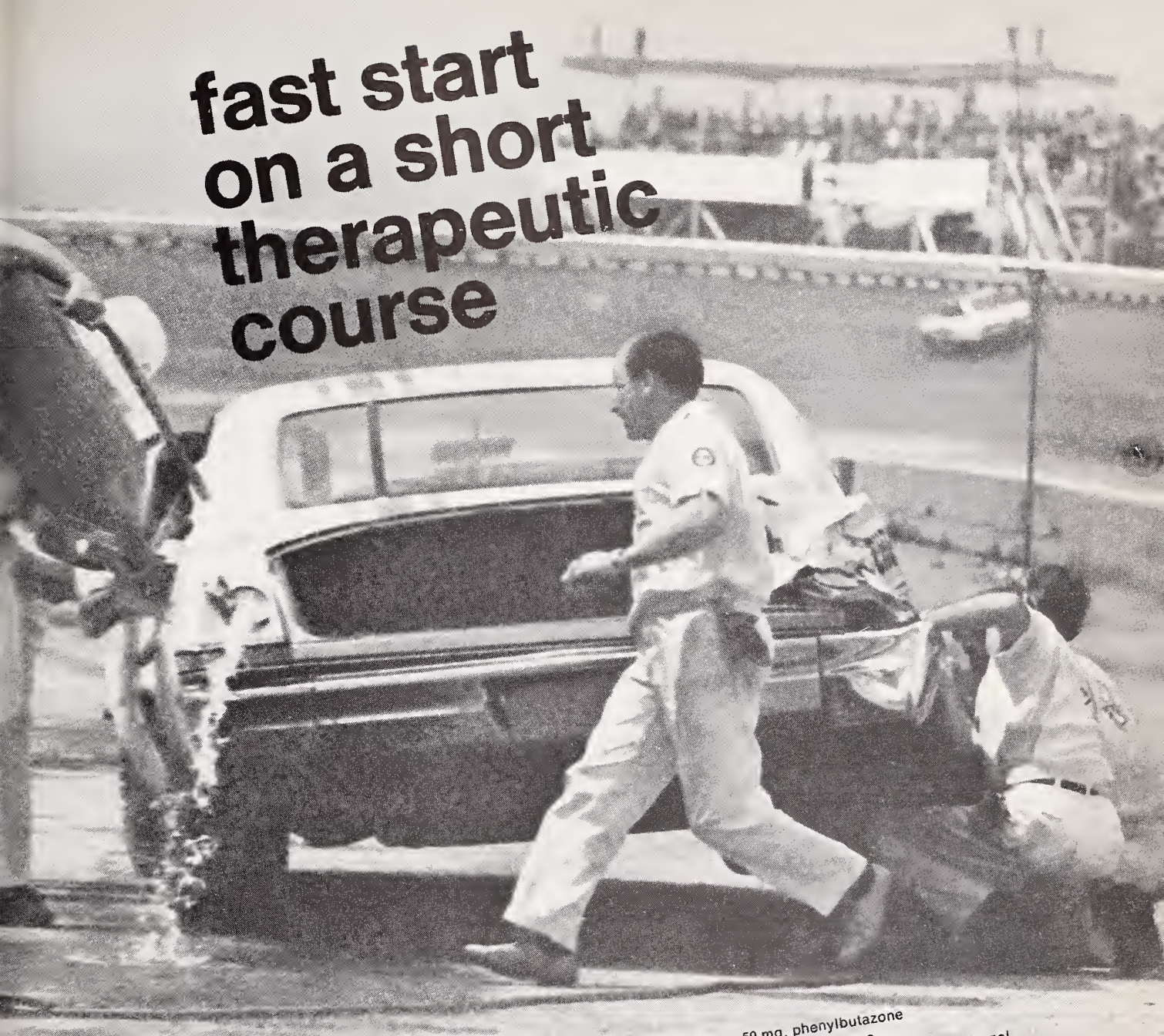
The problem approach is appealing to action-minded Americans. Numerous voluntary health associations exist as witnesses to this preference. The federal government has spent millions of dollars in a fight against diseases by category. The National Institutes of Health provide eloquent examples of this. Hospitals scattered throughout the countryside are concrete evidence of a government solution to an immediate problem, the lack of acute-care beds. The enemy was identified—tuberculosis, diabetes, stroke, cancer—and the troops turned out in force to defeat him. This approach remains appealing. The Regional Medical Program is an example of it in the planning field, for it was set up by Congress to deal with "heart, stroke, cancer and related diseases." There are difficulties with this approach. There is a tendency for each agency to attack its own special problem without regard to the others. This tendency need not be fatal, but it certainly can lead to duplication of effort, to needless expenditure of funds and to the construction or purchase of unnecessary facilities and equipment. It was just this difficulty which led Congress to enact the partnership-for-health legislation.

The grand-design approach is more difficult to appreciate. It is both more encompassing and less concrete. The health field is so broad and there are so many aspects to it that the mind tends to get bogged down by the sheer vastness of it all. Nevertheless, in the partnership-for-health law Congress has established an Office of Comprehensive Health Planning in each state, and each state is to establish a comprehensive health plan. Former categorical grants will become block grants to the several states. This appears to be a great improvement over the problem approach, and some such organization was long overdue. A great amount of effort will be necessary just to find out what the various departments of government are doing in their health-related functions. Simple data collection is difficult enough; meaningful data collection is a problem worse than that presented by the legendary Gordian knot. As if such an approach did not pose enough problems, there is an inherent sort of danger in it. Artists have been known to become enamored of their creations, and this might happen here. Such a beautiful design can be created that all will fall in love with it and forget why the design was created in the first place. On the other hand, the design can become fixed and inviolate, so that problems are fitted into it, by force if necessary. This need not happen, but it could. The problem approach could lead to a state of near-anarchy; the design approach could lead to sterility or near-autocracy.

THE HEALTH PLANNING COUNCIL OF IOWA USES EITHER OF TWO APPROACHES

About the time that the federal government was establishing the Regional Medical Program, and a little before the partnership-for-health law was passed, the Iowa Medical Society became interested in health planning, and set up a committee to study the matter. The result was the formation of the Health Planning Council of Iowa. It was incorporated in May, 1966, and is a voluntary, non-profit organization the membership of which consists of various health-interested groups—professional, voluntary and governmental. As a voluntary organization the Health Planning Council of Iowa is flexible, and it is not committed either to a problem or to a grand-design approach as it seeks to achieve its goal—the same goal as that of the Regional Medical Program and the Office of Comprehensive Health

(Continued on page 1000)



fast start on a short therapeutic course

Sterazolidin®

50 mg. phenylbutazone
1.25 mg. prednisone
100 mg. dried aluminum hydroxide gel
150 mg. magnesium trisilicate

Prompt anti-inflammatory action for...
relieving pain and stiffness
reducing tenderness and swelling
restoring joint movement
in bursitis, synovitis, tenosynovitis
and acute fibrositis.

Total treatment time: 7 days
Usual dosage: 2 capsules t.i.d.

Sterazolidin is valuable in the treatment of acute rheumatic conditions so often refractory to routine therapy. However, it is a potent drug, not a simple analgesic. Therefore, Sterazolidin should never be administered casually. For complete details on dosage, adverse reactions, contraindications and precautions, please see the following two pages.

Sterazolidin®

Each capsule contains:

Butazolidin®, brand of phenylbutazone	**50 mg.**
prednisone	**1.25 mg.**
dried aluminum hydroxide gel	**100 mg.**
magnesium trisilicate	**150 mg.**

Antiarthritic
Anti-Inflammatory

Capsules

Important Note Butazolidin, brand of phenylbutazone, and prednisone, the active ingredients of Sterazolidin, are both potent drugs; the pharmacologic action of each should be borne in mind when Sterazolidin is prescribed. Sterazolidin combines anti-inflammatory, analgesic, antipyretic, and antiallergic properties and cannot be considered a simple analgesic and should never be administered casually. The usual warnings, precautions and contraindications associated with Butazolidin, brand of phenylbutazone, therapy and steroids apply to Sterazolidin.

Indications: *Chronic treatment of:* rheumatoid arthritis, rheumatoid spondylitis, osteoarthritis; and also treatment of acute rheumatic conditions such as bursitis, synovitis, tenosynovitis, various forms of acute fibrositis, and acute gouty arthritis.

Contraindications
Usually absolute: active, questionably healed or suspected tuberculosis, herpes simplex ophthalmia, acute psychoses or severe psychoneuroses, history of blood dyscrasia, the frankly senile patient, and active peptic ulcer.

Relative: exanthematous diseases, particularly varicella and fungal diseases (for other viral diseases, the physician must weigh the possible undesirable effects against anticipated clinical improvement), diverticulitis, recovery phase after gastrointestinal surgery, any condition complicated by cardiovascular disease, renal insufficiency, moderate or severe diabetes mellitus, thrombophlebitis, osteoporosis, convulsive disorders, thyroid disease, history of drug allergy, history of peptic ulcer, hypertension, the elderly patient, psychotic tendencies, pregnancy, except in severe disease (the safety of Sterazolidin in pregnancy has not been established), edema, and hepatic damage.

Its use in conjunction with other potent chemotherapeutic agents may greatly increase the possibility of toxic reaction, and this practice is, therefore, inadvisable. Large doses are contraindicated in patients with glaucoma.

Warning Coumarin-type anticoagulants depress prothrombin activity. This is accentuated in some cases when Butazolidin, brand of phenylbutazone, is simultaneously employed in treatment; occasional instances of severe bleeding have been reported. Patients receiving coumarin-type anticoagulants should be very carefully followed for evidence of excessive increase of prothrombin time when Sterazolidin is added to this regimen. Anticoagulant therapy can then be properly adjusted, if necessary. When prescribed alone, Sterazolidin has not been shown to influence prothrombin activity. Persistent or severe dyspepsia may be indicative of peptic ulceration. In these instances, upper gastrointestinal x-ray diagnostic tests should be performed if the drug is continued. Pyrazole compounds, such as phenylbutazone, may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Patients receiving such concomitant therapy, therefore, should be carefully observed for this effect.

Precautions and Adverse Reactions *Gluco-Corticoid Activity:* In some diabetic patients on prednisone, the insulin requirements may be increased. It is advisable to observe diabetic patients carefully during the treatment period. Since gluco-corticoids may unmask latent diabetes, all patients should be observed for this effect.

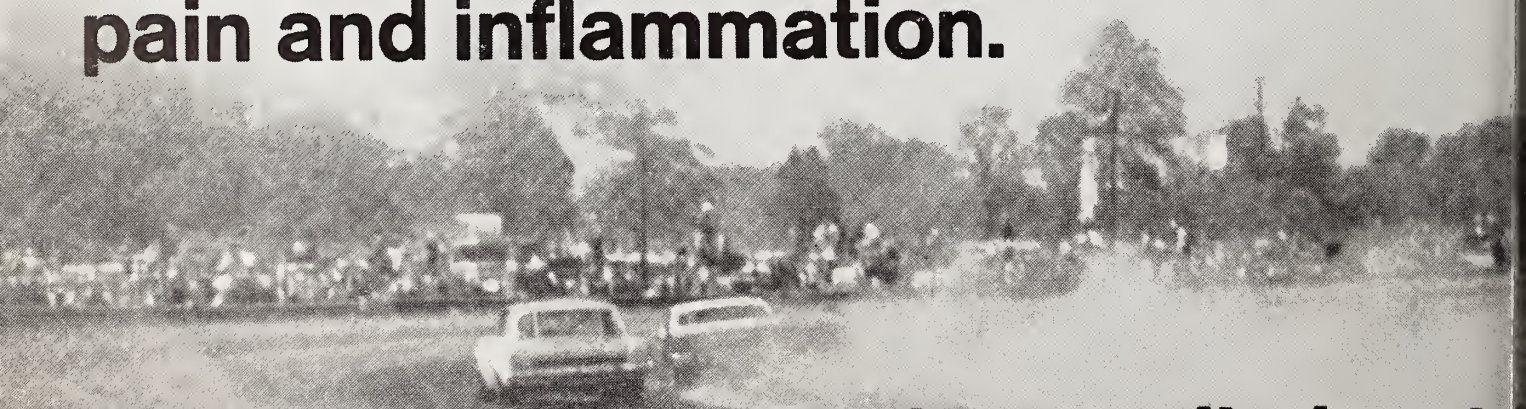
Electrolytes: Many patients receiving prednisone in average amounts show some loss of sodium, with little or no loss of potassium. With continued high dosage, however, sodium retention and potassium loss have been observed. Butazolidin, brand of phenylbutazone, has a definite tendency to produce sodium retention and hence, edema, particularly in the older age group. Elderly patients or those with hypertension, cardiac defect or renal dysfunction should therefore use Sterazolidin with special caution and the drug should be discontinued if edema develops. Developm of edema may be prevented or minimiz withholding salt from the diet. Sodium r tion may be counteracted with oral diur

Nitrogen: With the recommended dosag Sterazolidin, the possibility of nitrogen remote. However, it is recommended th tients receive adequate protein in their Osteoporosis or spontaneous fractures occur with prolonged use of prednisone

Gastrointestinal Tract: Clinical and anir studies do not indicate that the ulcerog activity of prednisone or Butazolidin, br phenylbutazone, is enhanced in the con tion. To overcome gastrointestinal disc and occasional eructation in sensitive p the medication is best taken at mealtim with milk; Sterazolidin contains antacid ponents to minimize the incidence of ga complaints. All patients should be warn report immediately the occurrence of bl tarry stools. The development of anemia immediately suggest gastrointestinal bl

Blood Elements: Patients receiving pre exhibit an eosinophil response similar t seen with other steroids. During the init weeks of treatment, Butazolidin, brand phenylbutazone, usually causes some d of hemodilution and resultant lowering red cell count. This phenomenon does represent a true anemia and is not indic of intolerance, but must be distinguishe true anemia secondary to gastrointestin bleeding or other causes. With the exte use of Butazolidin, brand of phenylbuta rare cases of agranulocytosis have occ (ratio less than 1 per 200,000 patients). should also be noted that agranulocyto occur suddenly in spite of regular, repe normal white counts. Several cases of l kemia and leukemoid reactions have be reported with Butazolidin, brand of phe butazone, therapy. Although these reac cannot be definitely attributed to this dr possibility of a causal relationship canr excluded. It should also be recognized arthritic-type pains are sometimes the ing symptom of leukemia. Accordingly, patients receiving Sterazolidin should h

It's aggressive against acute arthriti pain and inflammation.



And, we want you to know all about

e periodic blood counts before and
therapy. Any unexpected, significant
e in the total white count, relative de-
in granulocytes, or appearance of
ure forms should be regarded as a signal
mediate cessation of therapy and institu-
appropriate countermeasures. Thrombo-
enic purpura and aplastic anemia must
e considered possible side effects of
y with Butazolidin, brand of phenyl-
one.

: Surgery: Prolonged use of prednisone
ause a potentially critical degree of
ocortical insufficiency which may persist
after cessation of prednisone therapy.
fore, if a patient is subjected to signifi-
tress, such as surgery or trauma, either
Sterazolidin therapy or within one year
essation of therapy, it is advisable to
ister additional steroid and/or ACTH for
ration of the stress. Delayed wound
g may also occur in patients on pro-
d therapy.

ions: High or prolonged doses of
isone interfere with the usual immune
anisms against bacterial and viral infec-
and may promote their dissemination. In
al, steroid treatment should not be given
presence of infections unless appropri-
tibiotic therapy is instituted at the same
Systemic and localized infection compli-
s during hormone therapy have been ob-
d, including fulminating pneumonia,
culosis, moniliasis and aspergillosis.
d intercurrent infection develop, indi-
antibiotic therapy must be initiated
otly. Every patient who is to receive
olidin for any length of time should be
ghly examined, including chest x-ray,
presence of pulmonary or extrapulmo-
uberculosis.

onal Imbalance: Gluco-corticoids, in pro-
d dosage, may cause manifestations of
cortisonism or Cushing's syndrome, such
onface, abnormal fat deposits, mental
bances, muscle weakness and atrophy,
eous striae, acne, ecchymoses, hirsutism,
rual disturbances, edema, osteoporosis
ontaneous fractures, and hypertension.
by suppressing adrenocortical function,
ic prednisone therapy may cause some
e of atrophy of the adrenal glands. There-
f Sterazolidin is to be discontinued, the
d dosage should be tapered off gradu-
ally. In addition, it may be advisable to stimulate the adrenal glands with ACTH. Prednisone induces a prompt decrease in the urinary 17-ketosteroids. Pretreatment levels are usually regained within 7 to 14 days after cessation of therapy. Under conditions of long-term administration, a small percentage of patients on phenylbutazone may develop varying degrees of reversible thyroid hyperplasia.

Allergic Response: Development of drug rash should alert the physician to promptly discontinue the drug. The presence of prednisone in Sterazolidin may reduce the degree of allergic response; nevertheless, the same cautious attitude must be preserved with Sterazolidin as with Butazolidin, brand of phenylbutazone, if allergic manifestations occur. Other adverse reactions that have been observed with glucocorticoid therapy include: excessive appetite and weight gain, hyperidrosis, pigmentation, dry,scaly skin, thinning scalp hair, tachycardia, thrombophlebitis, headache, neuropathy (including paresthesias and neuritis), diffuse vasculitis similar to periarteritis nodosa, subcapsular cataracts, impaired renal function, lupus erythematosus-like changes, convulsions, insomnia, abdominal distention, aseptic necrosis of the femoral head, acute pancreatitis and ulcerative esophagitis.

Miscellaneous: Stomatitis and, rarely, salivary gland enlargement occasionally require the interruption of treatment with Butazolidin, brand of phenylbutazone. Adoption of a lower dosage schedule and the institution of strict oral hygiene sometimes prevent recurrence of lesions. The infrequent occurrence of such subjective sensations as vertigo or languor during therapy with Butazolidin, brand of phenylbutazone, is seldom a serious or significant complication. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hepatitis and jaundice, hypersensitivity angiitis, pericarditis and several cases of anura and hematuria. Patients should be carefully evaluated before treatment is started and those receiving Sterazolidin must remain under close medical supervision to guard against undesirable reactions such as those described. They should be instructed to report immediately the occurrence of fever, sore throat, lesions in the mouth, or black or tarry stools. It is recommended that periodic examinations of the patient include:

1. Verbal and physical examination, including blood pressure and appraisal of the cardiovascular, digestive and skeletal systems, for indications of toxic reaction.
2. Complete blood count (at weekly intervals during the first month), urinalysis, x-ray and electrolyte studies, as indicated.
3. Check of patient's weight to detect significant water retention.

Dosage Dosage should be individualized. The following general rules should be observed:

In acute therapy, dosage *should not exceed* 12 capsules on the first day and 6 to 8 capsules on succeeding days. Treatment for more than 7 days is rarely necessary. When therapy extends beyond one week, dosage should not exceed 6 capsules a day.

In chronic therapy, dosage *should not exceed* 6 capsules a day and should be tapered off gradually to establish the minimum maintenance level at which the patient still feels reasonably comfortable. A trial period of one week of therapy is considered adequate to determine the therapeutic effect of the drug. In the absence of a favorable response, therapy should be discontinued.

When switching from chronic high steroid therapy to Sterazolidin, the importance of gradual reduction of steroid dosage cannot be overemphasized. It should be kept in mind that the steroid content of 8 capsules of Sterazolidin will replace 10 mg. of prednisone (or its equivalent in related steroids).

Clinical experience indicates that most patients with rheumatoid arthritis may eventually be maintained on 3 to 6 capsules of Sterazolidin a day. It is advisable to administer the total daily requirement in divided doses.

Availability Sterazolidin: Light blue and orange capsules, in bottles of 100 and 1000.
(B)46-660-B

For complete details, please see full prescribing information.

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York 10502



Health Planning in Iowa

(Continued from page 996)

Planning. Its major effort has been directed to the setting up of areawide health-planning councils in the State of Iowa. Such councils are to be both design- and action-oriented. They will be representative of their respective areas and responsive to their needs. Theoretically, at least they seem to be the answer to the Martha-Mary question as it relates to health planning. In setting up these area councils, the Health Planning Council of Iowa is making itself a true partner in the partnership for health. For a major task of the partnership is precisely the establishment of areawide health-planning councils. Liaison with both federal programs is being maintained, duplication of effort is being avoided, and the vast, ungainly field of health affairs is being mapped. There is more than enough for each organization to do.

Currently the Regional Medical Program is involved with training programs in coronary care and in stroke rehabilitation. The Office of Comprehensive Health Planning, in conjunction with the Advisory Council, has established medical manpower as its primary concern for the coming year. The Health Planning Council of Iowa is continuing its efforts at the establishment of areawide health-planning councils, and is determined that these councils, once set up, shall be active and effective planning groups.

CONCLUSION

There is no doubt about the end and aim and goal of medicine, health professionals or health planning. It is to relieve suffering. There are two main approaches to the achievement of that goal. The problem or action approach is that of the Regional Medical Program dealing with heart disease, cancer, stroke and related diseases. The grand-design approach is that of the Office of Comprehensive Health Planning. A combination of the two approaches, stressing flexibility, is the strength of the Health Planning Council of Iowa, and hopefully, of the areawide health-planning councils which are in the process of being established by it. Now that we have our goal firmly in mind, and the means of achieving it at hand, the planning effort should be a success.

Richard M. Caplan, M.D., a professor of dermatology and the director of the Office of Medical Education at the U. of I. College of Medicine, will be glad to help program chairmen of county medical societies by suggesting appropriate faculty members to speak at their meetings. He can be reached by telephone at (319) 338-0525, Ext. 274.

Cardiac and Respiratory-Disease Conference

A continuing-education conference on cardiac and respiratory disease will be held at the University of Iowa Health Center, Iowa City, on Friday, December 5, under the sponsorship of the U. of I. Department of Internal Medicine, the Iowa Heart Association and the Iowa Thoracic Society. There will be no registration fee, but all physicians attending the courses are asked to register. Each of the two half-day programs has been approved for three hours of credit by the American Academy of General Practice. A parking permit for the day costs $1.50 and should be arranged for in advance.

RESPIRATORY DISEASES

9:00 a.m. "Management of Acute Respiratory Failure and Selection of the Patient for External Ventilation"—Ben V. Branscomb, M.D., Medical College of Alabama

9:40 a.m. "Office Management of the Patient With Chronic Obstructive Lung Disease"—Norman G. Hepper, M.D., Mayo Clinic

10:40 a.m. "The Beta Adrenergic Theory of the Atopic Abnormality in Bronchial Asthma"—Andor Szentivanyi, M.D., Creighton University

11:20 a.m. Panel: Significance of Wheezing in Lung Disease
Moderator: Paul M. Seebohm, M.D.
Participants: Ben V. Branscomb, M.D., Andor Szentivanyi, M.D., Norman G. Hepper, M.D., George N. Bedell, M.D.

12:00 noon Lunch

CARDIAC CONFERENCE

1:30 p.m. "Left Ventricular Outflow Tract Obstruction."—Michael E. Korns, M.D.

2:00 p.m. "Mechanisms and Treatment of Cardiogenic Shock"—Allyn L. Mark, M.D.

2:30 p.m. "Pediatric Cardiology—1969"—Ronald M. Lauer, M.D.

3:20 p.m. "The Endocrine Determinants of Hypertensive Disease"—Edward G. Biglieri, M.D., University of California School of Medicine, San Francisco.

4:20 p.m. "Digitalis—1969"—Robert J. Luchi, M.D.

4:50 p.m. Adjourn

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COMING MEETINGS

IN STATE

Nov. 8-9 **Postgraduate Conference on Radiology,** University of Iowa College of Medicine, Iowa City.

Nov. 12 **Lectures on Surgery,** Des Moines VA Hospital, Euclid Ave. at 30th Street, Des Moines.

Dec. 4-5 **Postgraduate Course on Obstetrics and Gynecology,** University of Iowa College of Medicine, Iowa City.

Dec. 5 **Cardiac and Respiratory Disease Conference,** University of Iowa College of Medicine, Iowa City.

CONTINENTAL U. S.

Nov. 2-5 **Civil Aviation Medical Association,** Houston.

Nov. 2-5 **International Symposium on Recent Advances in Study of Atherosclerosis,** Conrad Hilton Hotel, Chicago.

Nov. 3-5 **Omaha Mid-West Clinical Society,** Hotel Fontanelle, Omaha.

Nov. 3-6 **Postgraduate Course on Internal Medicine,** Kansas University Medical Center, Kansas City, Kansas.

Nov. 3-7 **Postgraduate Course in Internal Medicine, sponsored by Chicago Medical Society,** Lake Tower Inn, Chicago.

Nov. 3-7 **Nuclear Medicine: Diagnosis and Treatment of Disease With Radionuclides Given Internally sponsored by American College of Physians,** University of Michigan Medical Center, Ann Arbor, Michigan.

Nov. 3-7 **Mechanisms of Disease and Modern Therapy sponsored by American College of Physicians,** University of Chicago, Chicago.

Nov. 6-7 **Postgraduate Course on Perspectives in Lipids and Lipoproteins (Newer Methods and Applications),** Cleveland Clinic, 2020 East 93rd Street, Cleveland.

Nov. 8 **Cornhusker Surgery Conference sponsored by University of Nebraska Medical Center,** Lincoln General Hospital, Lincoln.

Nov. 8-14 **American School Health Association,** Municipal Auditorium, Philadelphia.

Nov. 9-12 **Conference on Respiratory Therapy sponsored by Children's Hospital Medical Center, New England Deaconess Hospital, and Lahey Clinic Foundation,** Statler Hilton Hotel, Boston.

Nov. 9-13 **American Fracture Association,** Sheraton Hotel, Columbus.

Nov. 10-14 **American College of Preventive Medicine,** Philadelphia.

Nov. 10-14 **Postgraduate Course on Occupational Health for Nurses sponsored by New York University Medical Center in cooperation with American Association of Industrial Nurses,** New York University Medical Center, New York.

Nov. 11-14 **Postgraduate Course on Clinical Electrodiagnosis of Neuromuscular Diseases,** New York University Medical Center, New York.

Nov. 12-13 **Postgraduate Course on Diseases of Small Intestine and Colon,** Cleveland Clinic, 2020 East 93rd Street, Cleveland.

Nov. 12-14 **American College of Obstetricians and Gynecologists, District Meeting,** St. Paul Hilton, St. Paul.

Nov. 12-15 **Today's Hospital Problems: An Interdisciplinary Approach for Chiefs of Staff, Hospital Directors and Governing Personnel sponsored by Mound Park Hospital Foundation, Inc. and University of Florida College of Medicine,** Tides Hotel and Bath Club, Redington Beach, Florida.

Nov. 13-15 **Annual Pediatric Postgraduate Symposium sponsored by Kidney Foundation of Houston and Greater Gulf Coast,** Baylor University College of Medicine and Texas Children's Hospital, Houston.

Nov. 13-15 **American Thyroid Association,** Drake Hotel, Chicago.

Nov. 13-18 **American Heart Association,** Memorial Auditorium, Dallas.

Nov. 16-19 **76th Annual Meeting of the Association of Military Surgeons of the United States,** Sheraton-Park Hotel, Washington, D. C.

Nov. 16-20 **22nd Annual Meeting of American Association of Blood Banks,** Shamrock Hilton, Houston.

Nov. 17-21 **Postgraduate Course on Pediatrics, sponsored by Chicago Medical Society,** Lake Tower Inn, Chicago.

Nov. 17-21 **Postgraduate Course in Correlative Neuroradiology sponsored by New York University School of Medicine,** New York.

Nov. 19-20 **Postgraduate Course on Neurosurgical Technics,** Cleveland Clinic, 2020 East 93rd Street, Cleveland.

Nov. 19-21 **Postgraduate Course on Emergency Service Procedures sponsored by University of Colorado School of Medicine.** Denver.

Nov. 19-22 **Western Surgical Association,** Statler-Hilton Hotel, Dallas.

Nov. 19-23 **Academy of Psychosomatic Medicine,** Mt. Shadows Hotel, Scottsdale, Arizona.

Nov. 21 **Postgraduate Course on Neurology for General Practitioners sponsored by University of Nebraska Medical Center,** Campus of Medical Center, Omaha.

Nov. 21-22 **Delivery of the Medical Care in the 1970's sponsored by the Institute of Medicine of Chicago.** Ambassador West Hotel, Chicago.

Nov. 29 **AMA Medical Services Conference on Medical Review Activities,** Denver.

Nov. 30 **11th National Conference on Medical Aspects of Sports,** Cosmopolitan Hotel, Denver.

Nov. 30-Dec. 3 **American Academy for Cerebral Palsy,** Caesar's Palace, Las Vegas.

Nov. 30-Dec. 3 **Clinical Convention, American Medical Association,** Denver.

Nov. 30-Dec. 5 **Radiological Society of North America,** Palmer House, Chicago.

Dec. 3-4 **Postgraduate Course on Respiratory Failure—Acute and Long Term Management,** Cleveland Clinic, 2020 East 93rd Street, Cleveland.

Dec. 6-11 **28th Annual Meeting of American Academy of Dermatology,** Americana Hotel, Bal Harbour, Florida.

Dec. 8-11 **Pulmonary Function in Health and Disease,** Louisiana State University School of Medicine Auditorium, New Orleans.

Dec. 8-12 **Obstetrics and Gynecology Traineeship sponsored by University of Nebraska Medical Center,** Campus of Medical Center, Omaha.

Dec. 10-11 **Postgraduate Course on Concepts in Diagnosis and Management of Diseases of Vitreous, Retina and Choroid,** Cleveland Clinic, 2020 East 93rd Street, Cleveland.

Dec. 10-12 **Postgraduate Course on Gynecology and Obstetrics,** Kansas University Medical Center, Kansas City, Kansas.

ABROAD

Nov. 20-27 **Latin American Congress of Pathology (7th),** Buenos Aires.

Nov. 21-22 **National Conference of Psychiatry,** Bucharest, Rumania.

Nov. 22-23 **Norwegian Oto-laryngological Society,** Oslo.

A once-popular treatment for back pains was to have the seventh son of a seventh son stand or walk on the patient's back.





The pain of earache was allegedly relieved by holding a hot roasted onion to the ear.

For headache, a sovereign remedy was to wear a snakeskin round one's head.



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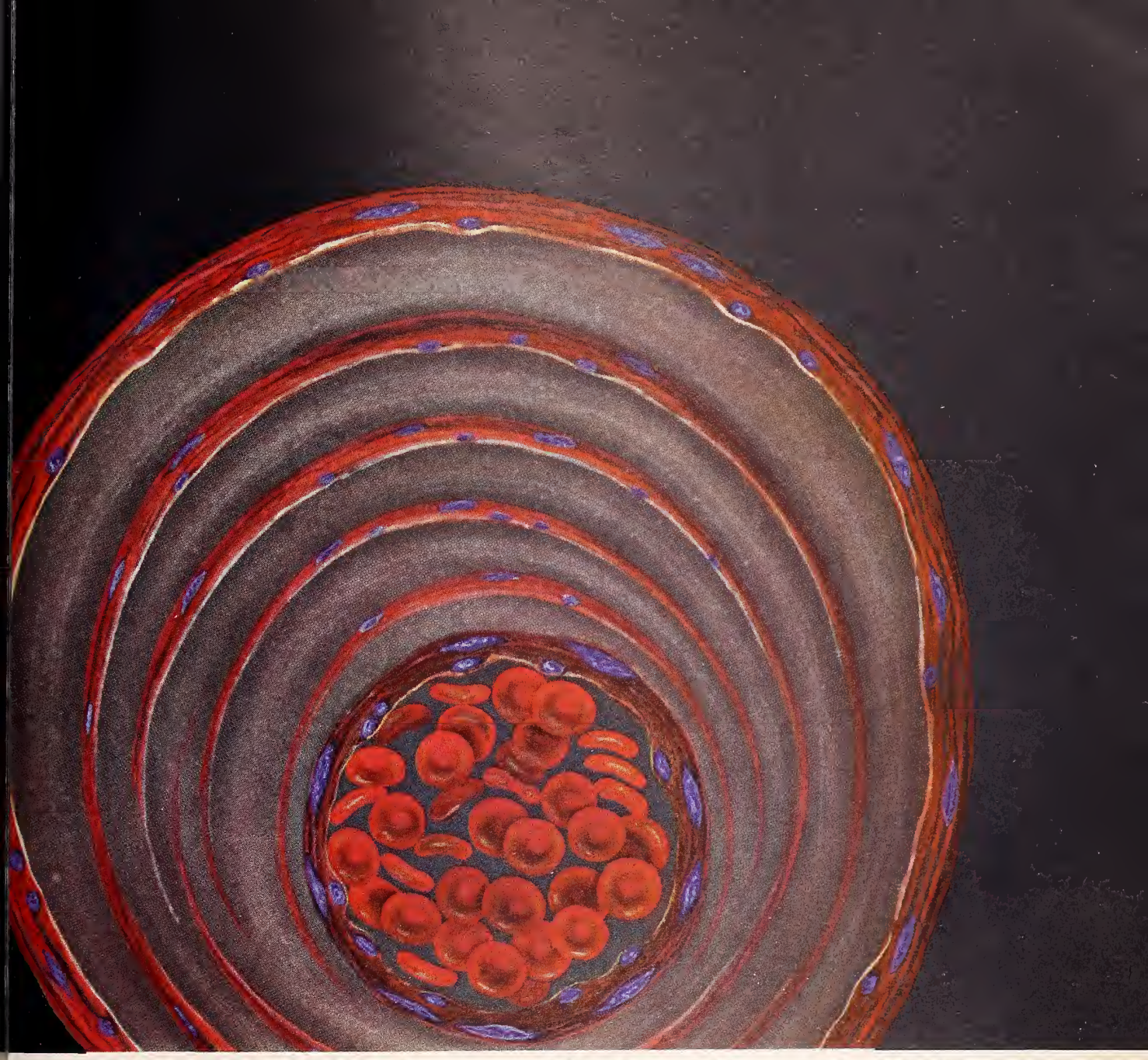
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Scientific Articles

Chronic Maintenance Dialysis for Patients With End-Stage Renal Disease

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Patients with end-stage renal disease have been maintained for longer than seven years by means of extracorporeal hemodialysis, but not all patients so treated survive that long. Lengthy survivals depend to a great degree upon the initial selection of patients. It is estimated that 60 per cent five-year survivals can be anticipated when extracorporeal dialysis is the primary mode of treatment. *Survival,* in this context, does not imply an existence that could be considered normal for someone of the patient's age, however, and the added years may indeed be punctuated by a variety of severe or minor complications. Yet the quality of existence is indeed acceptable.

The experiences to be narrated in this paper date from July, 1964, and relate to 43 different patients. There are three major problems in a patient population of this sort: (1) disturbance in calcium metabolism, which can lead to severe demineralization of bone and to deposition of calcium in soft tissues and in the parenchymas of visceral organs; (2) neurologic problems expressed primarily as a peripheral neuropathy which can be extremely disabling; and (3) uncontrolled hypertension, with its attendant cardiopulmonary and cerebrosvascular problems.

The "ideal patient" on chronic maintenance dialysis is a youthful, mature individual with no disease that is unrelated to his primary renal problem. The patient must have a strong desire for survival. Moreover, he or she must have some proved socio-economic value and be capable of carrying on an occupation which does not require sudden or sustained high energy output.

THE HISTORY OF DIALYSIS

The first patient who underwent dialysis in Iowa City dates back to 1957. It was then felt that dialysis should be reserved for patients with acute renal failure, and it is somewhat ironic that our first patient had a chronic form of renal disease. It is difficult at times to ascertain whether one is dealing with acute renal failure, with severe dehydration and electrolyte imbalance, with the uremia of chronic renal disease, or with an exacerbation or aggravation of a preexisting renal disease. Biopsy may be necessary to resolve the dilemma.

Kolff[11, 12] did the first clinical dialysis for re-

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nal disease in 1943, and he can indeed be called "the father" of clinical dialysis. Prior to that time, dialysis had been used in subhuman species by Abel, Turner and Rountree.[1] In 1960 Scribner reported on two patients who had been maintained on dialysis for several months.[20] In 1962 his group reported in more detail on four patients who were being treated with maintenance dialysis.[18] If we are to ascribe paternity for chronic dialysis, we must assign it to Scribner.

It has been demonstrated repeatedly that chronic hemodialysis can sustain life at a qualitatively acceptable level,[7, 22] and at present consideration is being given to establishing a great number of centers and even to facilitating home dialysis so that large numbers of patients with end-stage renal disease can be maintained. It is estimated that approximately 1,500 patients are currently being dialyzed, and another year may see the addition of two or three thousand more patients to the dialysis ranks.

The initial criteria set up by Scribner and others for acceptance of patients to a chronic renal dialysis program have been abrogated many times during the past few years.[19] In our experience, many patients who failed to satisfy the criteria for the "ideal patient" have been accepted. Some of them will not achieve the survival records previously quoted, but life may be "more dear" for this group of patients.

Therapeutic innovations invariably call to mind persons who were "born too soon." Several exceptionally good candidates whom we can recall came to our attention during the era of dialysis for *acute* renal failure, but missed the era of dialytic treatment for *chronic* renal failure by only a few months. Some of them were treated by means of the artificial kidney, but only for palliation. In our current frame of reference palliative dialysis is no longer acceptable.

Many patients on chronic dialysis have adjusted in a remarkable degree to the severe dietary and water restrictions, and to the limitations on physical activity. There are a variety of personalities in this population. Most are eager to be rehabilitated, but some initiate serious restrictions in their activity, which preclude their full-time employment. The work patterns in the group vary from full-time em-

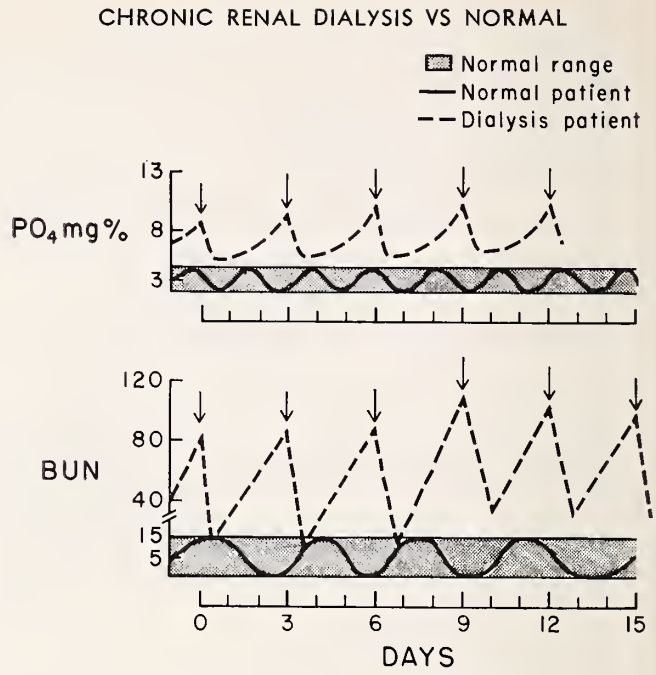


Figure 1. Periodic chemical imbalance.

ployment to no apparent profitable employment, but most of the patients are ambulatory, rather than hospitalized, and lead acceptable existences. Enforced hospitalization for treatment averages about two weeks per patient per year.

It has been an exciting experience to treat this group of patients, for they are fairly well adjusted despite living, as they do, under a constant threat of death. They become somewhat dependent on the professional personnel in the dialysis center, relying upon them to help solve their problems. Most of them live in anticipation of receiving successful renal transplants.

PHYSIOLOGIC CONSIDERATIONS

Patients on satisfactory maintenance dialysis are not uremic according to chemical and clinical criteria. Because their dynamic equilibrium has wider "swings," their so-called "normals" have a greater range and a different mean. Continuous ambulatory dialysis would be ideal, but it is neither technically nor economically feasible. As a result, wide deviations in chemical composition must be tolerated (Figure 1), and must be partially compensated for by 12-hour biweekly dialyses.

Most of the electrolytes can be kept within acceptable ranges. Because phosphates dialyze with difficulty, most patients are chronically

hyperphosphatemic. Potassium can be controlled by means of a combination of diet, dialysis and, if necessary, exchange resins. Calcium levels vary from hypocalcemic to "normal," and do not reflect the severe demineralizing process that goes on in many chronic-dialysis patients. All patients are slightly hypermagnesemic, but the significance of that condition is unknown.

DIALYSIS

The physical process of dialysis consists of the movement of substances across a semipermeable membrane, which in most instances is cellophane or a modification thereof. Some substances can be extracted from the blood by virtue of the characteristics of this membrane, and others can be added as indicated. Not all substances "clear" at a uniform rate, even though they are ionic. Phosphates, for example, have a low rate of clearance (dialysance), whereas chloride, urea and potassium cross the semipermeable barrier more or less readily, depending upon the concentration gradients which have been established.

Several "species" of dialyzers are available, and they differ principally in mechanical design. In the United States the most popular units for chronic dialysis are the modified Kiil dialyzer,* and the Travenol unit.† The Kiil is an 0.8 sq. M., single-pass, counter-current, low-resistance, regionally heparinized unit. One can achieve many physical modifications by manipulating the basic unit. The Kiil unit contains a flat cellophane membrane, with flow channels for blood and dialysate separated by the cellophane membrane (Figure 2).

COMPOSITION OF THE TEAM

Dialysis, either acute or chronic, can be accomplished with limited personnel, but one physician must be consistently responsible for the technical as well as the professional conduct of the procedure. This is not a technic that should be assigned to someone who has no more than a casual interest in dialysis, for such an attitude can be a threat to the patient's survival as well as to the effectiveness of the treatment.

When two or more patients are put on chronic dialysis at a "center," it is highly desirable for a team of physicians, nurses and technicians specially trained in this field to conduct the program. Our team consists of nurses, technicians, physicians, and secretarial and laboratory personnel. We do approximately 1,500 dialyses per year for chronic renal failure, and treat patients with acute renal failure as they present.

DIET

Dietary control comprises a significant aspect of the chronic renal-dialysis patient's existence. If possible, dietary control is explained in detail to the patient prior to his or her admittance to the program. Emphasis is placed on the compositions of particular foods, and more specifically on their sodium and potassium contents. Patients are not restricted calorically, but a high caloric intake is not entirely possible within the framework of the compositional restrictions. Protein is not restricted, but patients are encouraged to eat products of high biologic quality, e.g., meat and eggs. They are urged to eat hard candy, but not all of them like this form of nutrient, or they tire of eating it. The necessity for fluid restriction is stressed. Members of the Dialysis Unit staff have written a programmed instructional manual which includes dietary requirements.[4]

MEDICATION

Various medications are administered on a chronic or an acute basis. Medications for chronic-dialysis patients may include anticonvulsants, antihypertensives, vitamins (especially vitamin D), and phosphate binders generally in the form of alumina gels. The last of these, though considered useful in treating osteodystrophy, has a low patient tolerance, for it tends to nauseate and constipate. The medications prescribed on a short-term basis are, for example, analgesics and antibiotics. Special caution must be used regarding the metabolism of drugs prescribed for dialysis patients. Schedules for many antibiotics have been defined.[13]

WATER PROBLEMS

The composition of the water supply varies greatly from one region to another. Initial analysis revealed that the water delivered to the Iowa City Veterans Administration Hospital was very "hard" (160 grains). In other

* Marketed by Western Gear, Seattle, Washington.
† Marketed by Baxter-Travenol, Morton Grove, Illinois.

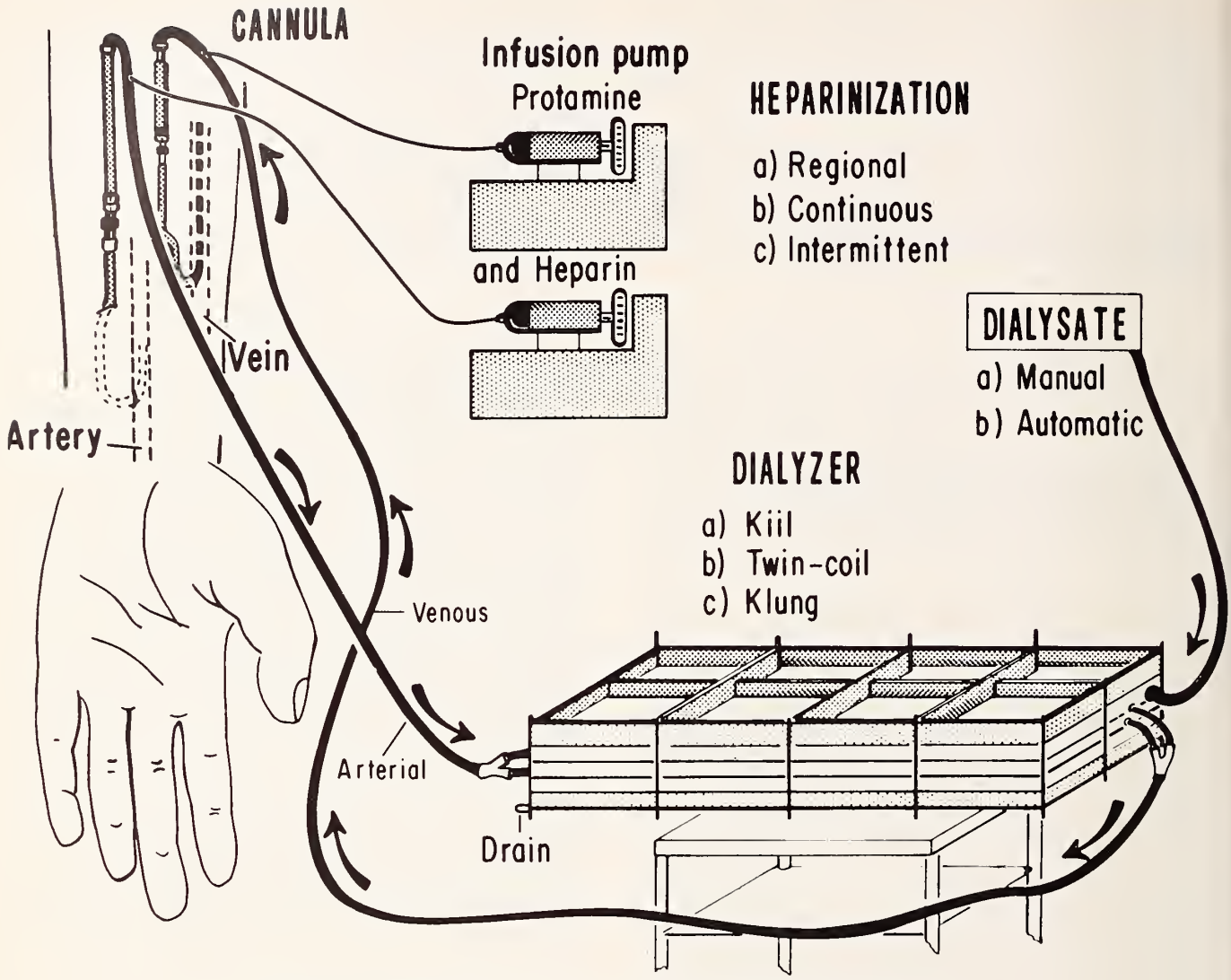


Figure 2. Modified Kiil dialysis unit with blood and bath circuits indicated.

words, it contained excessive quantities of magnesium and calcium. To "soften" the water, sodium is exchanged for magnesium and calcium. This type of water management is acceptable provided that the characteristics of the untreated water supply do not vary, but on repeat analyses we found its composition quite variable. Indeed it became necessary for us to install a water system which would provide us fairly "pure" water. The system incorporates cation and anion exchange columns, a mixed exchange-bed, a charcoal filter and a "final" micropore filter. The resultant water has a resistance of 18 million ohms, and is relatively free of organic and particulate matter. On one occasion the water-softening bed at the hospital failed to function, and raw water was delivered to the dialysis hydrant. The results were high levels of calcium and magnesium in the dialysis patients, which induced the "hard water syndrome" characterized by nausea, vomiting and paresthesias.[5]

PLACEMENT OF ARTERIOVENOUS SHUNTS

Ready access to the vascular system of the patient is absolutely essential to extracorporeal dialysis.[2] It may be accomplished by establishing an external arteriovenous shunt (Figure 3), or by constructing a buried subcutaneous fistula which will induce arterialization of the superficial veins in the extremity. The extracorporeal shunt can be placed either in a leg or in an arm, but it is best constructed in the upper extremity. When there is to be a buried shunt, two needles must be inserted prior to each dialysis, for outflow and inflow through the dialyzer. The advantage of this arrangement is that the patient has no external

prosthetic device. The obvious disadvantages, however, are the necessity of two vessel punctures before each dialysis, and the need for maintaining adequate blood flows. Nurses in the Dialysis Unit insert the needles on each occasion. The buried shunt performs much better if it is placed in an extremity that has not been the site of previous extracorporeal shunts; otherwise there may be too many obstructions in the major subcutaneous venous pathways to allow an adequate flow through these vessels. A side-to-side (S-S) or an end-to-end (E-E) internal (buried, subcutaneous or intracorporeal) (A-V) fistula can be constructed. One such technic, including our specific innovations, will be described.

USE OF THE VASCULAR STAPLER

A fault of the older techniques was the guesswork involved in establishing a "calibrated" buried fistula. A "free-hand" fistula may gradually enlarge, and in some instances may be associated with a false aneurysm or an aneurysmal dilatation.

The Nakayama Vascular Stapler* uses stainless-steel spikes that interdigitate into preformed holes in "mated" rings. The rings are mounted in special holders, and the artery and vein are impaled on the spikes mounted on the rings (Figure 4). The ring holders with the vessels impaled on them are then approximated, and by compression on an "anvil" the spikes are crimped over the rings, to assure intima-to-intima approximation (Figure 5). The rings have diameters of 2, 3 and 4 mm., and one can choose the appropriate size. In all instances when we have used the vascular stapler we have had prompt function of the fistulous tract. Two side-to-side buried fistulas have "closed" following successful homotransplants—one from a cadaver and the other from a living, related donor. Cardiac failure attributable to arteriovenous fistulation has not been encountered.[21]

Clotting is one of the most frequent complications of the extracorporeal (Scribner)

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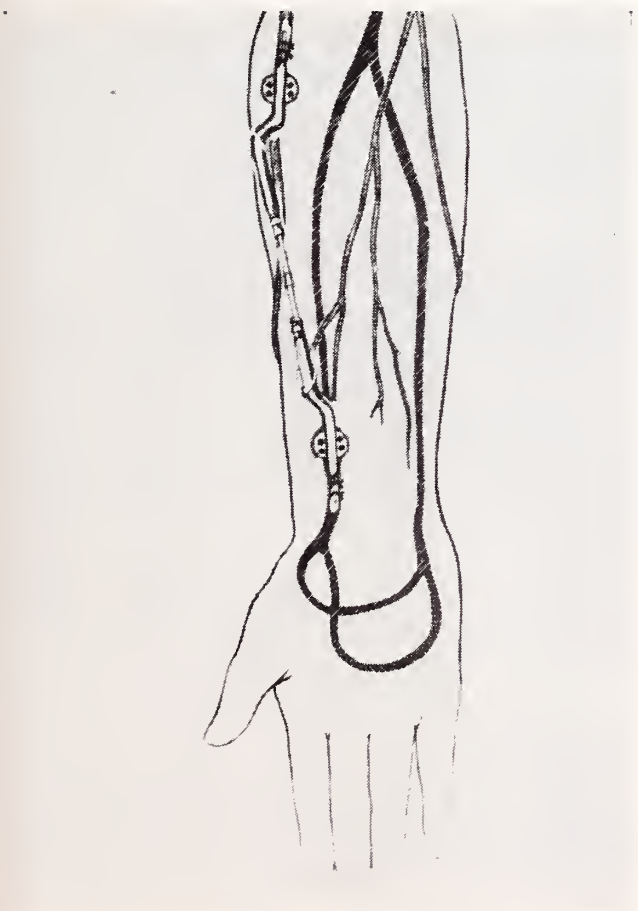


Figure 3. External shunt—"straight" artery to vein.

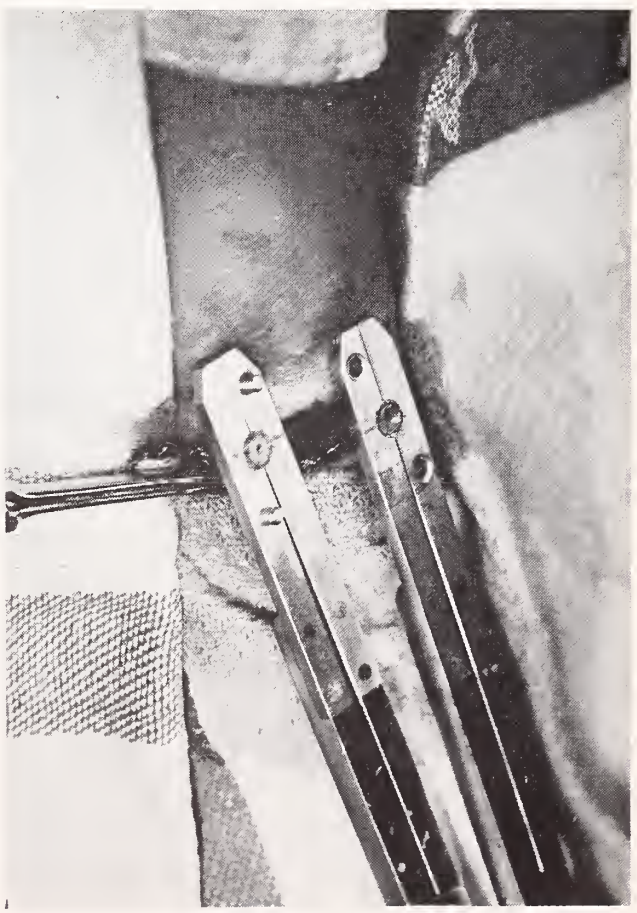


Figure 4. Special holding clamps for "spiked" rings.

shunt. The arterial and the venous "limbs" clot with about equal frequency. In our established declotting procedures we use a balloon-tip catheter. When the apparatus cannot be declotted, the arterial or venous sites can be reconstructed in the same extremity, or one may choose—especially in the event of infection—to place a shunt in a different extremity.

Infection may become established around the cutaneous ostia of the prosthetic material. If exudate is present in such a situation, it is cultured and "sensitivities" are obtained. An appropriate antibiotic may then prevent spread of the infection and clotting of the shunt.

VARIOUS COMPLICATIONS

Bleeding Problems. It is necessary to use anticoagulants during dialysis because there are thrombogenic surfaces within the dialyzer. Regional heparinization is almost always used to avoid heparinizing the patient. A fairly common cause of death in dialysis patients is intracranial bleeding. We have detected subdural hematomas at autopsy and at operation. It should be emphasized that if this situation is encountered, appropriate neurosurgical treatment is essential for survival. Retroperitoneal hematomas may occur, and may be associated with severe abdominal pain. Subcutaneous bleeding has occurred not infrequently, and has been manifested by moderately tender masses.

Osteodystrophy. Fractures are frequent. Primarily, they involve ribs, and except for the inconvenience—which may be considerable—no specific sequelae have been noted. If a mild analgesic cannot control the pain, xylocaine is infiltrated into the intercostal nerves above and below the fractured rib. Fracture of the femoral neck has been satisfactorily treated by replacing the femoral head with a prosthetic device. The response has been very gratifying,

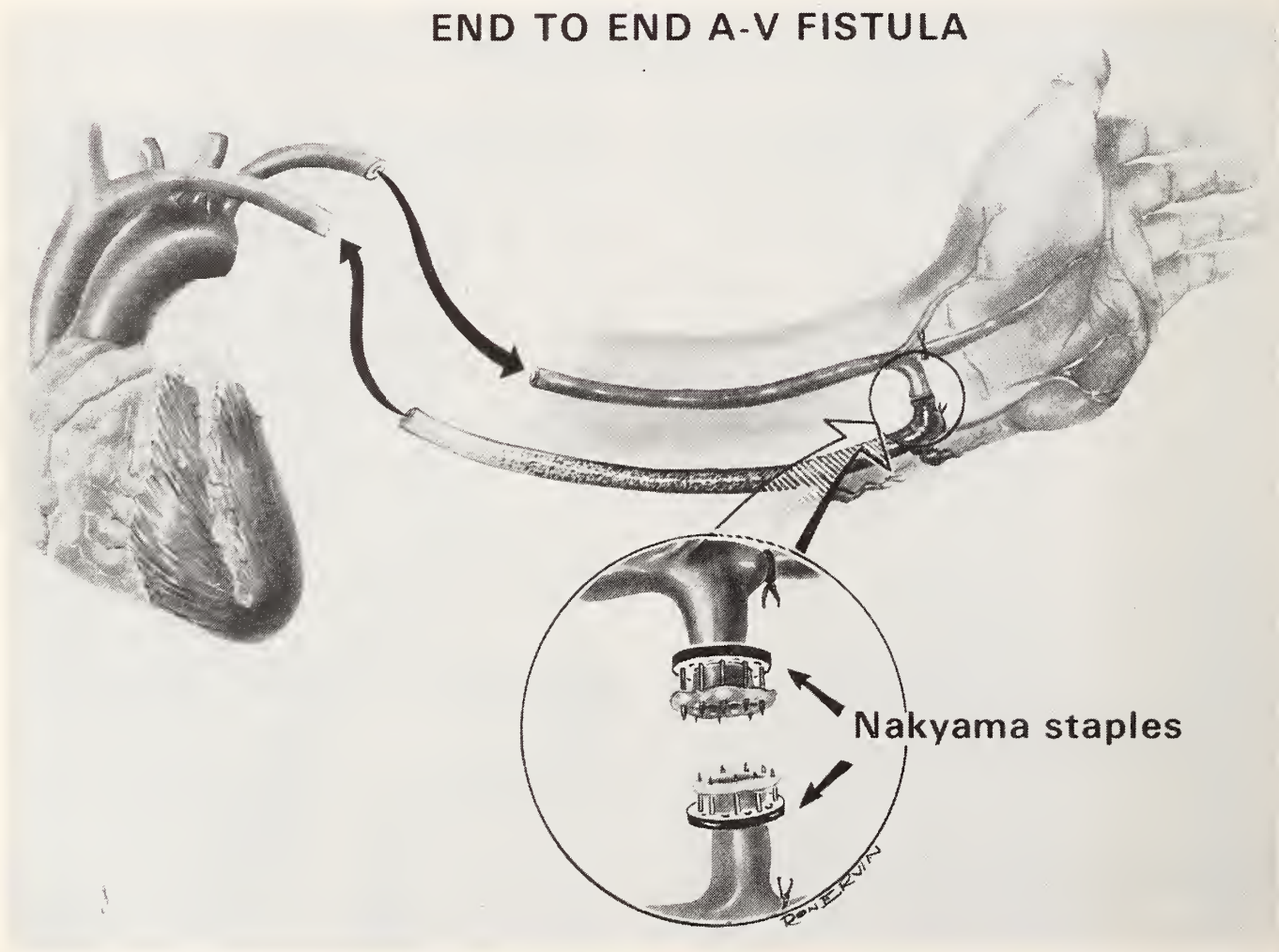


Figure 5. Completed end-to-end buried subcutaneous fistula.

and after several months the patient could walk with a cane.

Osteodystrophy is evident in many patients after long periods of intermittent dialysis. As calcium is mobilized from the bones it often is deposited in ectopic locations. One such site is the conjunctiva of the eye, and another is the cornea, where it appears as a band keratopathy. Postmortem histologic examination reveals excessive calcium in vital organs, including the lungs, heart and kidneys. Deposition of the calcium ion in the pulmonary parenchyma may lead to respiratory insufficiency and death. Special stains for calcium may show great quantities within the lung parenchyma.

Postmortem examination will reveal demineralizing disease in most dialysis patients. Normal or slightly elevated calcium levels and elevated serum phosphorus have usually persisted for long periods. Presumably the relative decrease in the calcium-phosphorus ratio leads to stimulation of the parathyroid glands, and their subsequent hypertrophy (pseudohyperparathyroidism). The glands become autonomous and continue their hyperfunction even after the stimulus has been withdrawn. One would expect that there would be hypertrophy in all the parathyroid glands. Parathyroidectomy was recently accomplished in two patients with severe osteodystrophy and multiple fractures who had not responded to vitamin D and calcium. Hypertrophied glands were found in both patients. Their recent postoperative courses have been satisfactory.

Peripheral Neuropathy. Almost all of our patients show evidence of decreased nerve conduction. In most of them this is clinically evident as a decrease in sensation and a weakness of muscle groups. In two patients a neuropathy in the form of transient facial-nerve paralyses, one bilateral and the other unilateral. An interesting problem attends bilateral facial paralysis—a difficulty in deglutition because of the lack of "tone" in the cheeks, and a tendency to "drool." Peripheral-nerve conduction studies were obtained on the first five patients admitted to the Unit, and the cases were followed for three months. Over this relatively short period of time, the peroneal nerve conduction tended to improve or remain static. Repeated hourly studies during 12-hour dialyses showed no significant change. As the average age of the dialysis population in our center advances, the incidence of peripheral neuropathy tends to worsen (Table 1). The severity of neuropathy as manifested by conduction velocity may not correlate with the performance status.[3]

TABLE 1

NERVE CONDUCTION VELOCITIES AND CLINICAL SYMPTOMS

NCV M/sec	Clinical Neuropathy
35-39′ 3 patients	(2) Undetectable
	(1) Mild
30-34′ 1 patient	(1) Mild
25-29′ 1 patient	(1) Mild
20-24′ 1 patient	(1) Moderate
20′ 9 patients	(4) Moderate
	(5) Severe

Duodenal Ulcer. About 20 per cent of dialysis patients have developed duodenal ulcers which were symptomatic and were verified by upper gastrointestinal visualization. In most instances the ulcers have responded to conservative management. Several patients have had gastrointestinal bleeding, but it has never been severe enough to prompt surgical intervention.

Gynecomastia is a potential surgical problem. We have observed this phenomenon, which is invariably bilateral, in six patients.[6] The major symptom is pain in the breast which fluctuates in intensity. In some patients the breast enlargement has reached almost embarrassing proportions. The cause for the gynecomastia is not known, and it has been likened to the type seen in prisoners of war following their release, which has been characterized as "refeeding gynecomastia."[10]

Anemia in renal failure occurs in its severest form in patients maintained on hemodialysis.[2,3] At one time the average monthly predialysis hematocrit was maintained at 23.75 vols. per cent over a period of 116 dialysis months. During that time a transfusion of one unit of packed cells was given routinely whenever the predialysis hematocrit fell below the arbitrary figure of 23 vols. per cent. When the arbitrary criterion was discontinued, the average pre-

dialysis hematocrit dropped to 18.15 vols. per cent. Over a period of 77 dialysis months the transfusion rate was 2.0 units per month per patient. The cumulative difference was not great, but individual patients received only half of the amount of blood transfused while the arbitrary criterion had been in effect. We can assume that the increased need for transfusions would have obtained in some of the patients regardless of the criteria applied. However at the new average hematocrit level few patients have complained of any discomfort. Their transfusion needs have varied greatly, the range being from 17 to 37 units per patient per year.

Excessive transfusions had increased the iron load in some of these patients, as evidenced by the near 100 per cent saturation of their serum iron-binding capacity.

In a study of serum and dialysate folate levels, one of us (J.Y.S.) demonstated that active folates can be dialyzed. This loss was not felt to be sufficient to cause a deficiency state in patients taking an adequate diet.

Acute Renal Failure. Our attitude toward this entity and toward poisonings with dialyzable substances is an aggressive one. When the diagnosis of acute renal failure has been made, shunts are placed and the patient is dialyzed as frequently as every day, if necessary. We believe that we should rarely lose a patient from acute renal failure. However it may take more than a month of dialyses until the patient can "heal" the renal lesion. It should be emphasized that acute renal failure is usually reversible. In some instances where the renal failure has been the result of severe trauma, the patient may die from associated problems such as severe head injury, a pulmonary complication, etc. Theoretically, if the patient survives the problems associated with the acute renal failure, but experiences no return of renal function, he could be placed on chronic maintenance dialysis.

PSYCHOLOGICAL ASPECTS

These are interesting patients to work with. Close and frequent contacts provide the physician an intimate knowledge of the patient's way of life. At times these people express disgust with their lot, but with a little encouragement and with hope for a transplant, they can overcome their depression. Some of the patients have encountered major family emotional crises and have managed quite well. A constant attempt at understanding by the dialysis personnel contributes greatly to the patient's mental equilibrium. Our patients have been divided into three categories: the conformist, the masculine and the adaptive.[17] The first of these types of people become dependent easily. The masculine type of patient finds restrictions difficult to accept. The adaptive is the most suitable type of dialysis patient.

TABLE 2

PERICARDITIS IN HEMODIALYSIS PATIENTS

	BUN	CR	Chest Pain	Anti-Coag.	Tamponade
D.L.	118	25	+	0	0
A.W.	102	12	+	0	0
J.S.	88	16	+	+	+
H.L.	86	14	+	0	+
J.P.	72	12	+	+	+

OTHER PROBLEMS

Hypertension may be difficult to control, and bilateral nephrectomy has been done in an attempt to aid in controlling hypertension. The patient with uncontrolled blood pressure—especially the one with high diastolic pressure—has the added risks of seizures and the development of intracranial bleeding. This last-mentioned complication ranks high as a cause of death in our Unit.

Five patients have shown evidence of pericarditis while on maintenance dialysis. Three developed tamponade, which prompted the creation of a pericardial window. All three tolerated this procedure and responded as anticipated. The "bloody" tamponade developed while patients were on *adequate* dialytic therapy, and two were on anticoagulants at the time (Table 2).

It should be emphasized that patients on adequate maintenance dialysis can tolerate almost any surgical procedure that is necessary to correct a life-threatening problem. This point has to be stressed lest some patients be denied surgical treatment on the basis that they are "uremics" or have end-stage renal disease. Several scientific papers have been written on

the surgical aspects of maintenance dialysis.[9, 14, 15]

A serious problem in the patient who is generally doing well on chronic dialysis is total shunt failure, with no sites available for ready access to the arterial or venous system. Under these circumstances it is essential to consider undertaking a renal homotransplant to prolong the patient's life.

One patient with a permanent ileostomy of 13 years' duration developed a vitamin A deficiency. He was found to have a severe malabsorption syndrome, his vitamin A levels were low, and his electroretinogram was diagnostic of vitamin A deficiency. Symptomatic night blindness alerted us to this deficiency. The patient was placed on parenteral vitamin A, 200,000 units biweekly, and over a period of several months he gradually became asymptomatic.

PERSPECTIVES

It has been approximately 28 years since Scribner demonstrated the feasibility of repetitive dialysis as a means of maintaining an acceptable existence. The artificial kidney has proved to be one of the most satisfactory organ-support systems available. In 1963 Starzl gave impetus to the development of renal homotransplantation. The above facets in the treatment of end-stage renal disease laid the groundwork for a subsequent report by Gottschalk, putting the total picture of end-stage renal disease, dialysis and transplantation into perspective.[8] His report identified several problems: (1) the doubtful capability of the medical community to manage the large numbers of patients with the personnel and facilities now available and with the present "state of the art"; and (2) the high cost of such an undertaking—that large sums of money are needed to initiate and continue a treatment program for end-stage renal disease that makes use of all the sophisticated technics currently available.

In the past the emphasis has been on dialysis for the treatment of patients with end-stage renal disease at a medical center. The emphasis appears to be changing, and in the future home dialysis will be accentuated. It is not so costly to dialyze in the home, and the overall performance of the patient may be better because dialysis can be done more frequently (three or more times per week). The smooth operation of a dialysis program, whether in the home, at a satellite installation or at a medical center, depends ultimately on the accessibility of the patient's vascular supply. A buried fistula is not ideal for the home-dialysis situation, and therefore the accent will remain on extracorporeal "shunts."

In 1964 dialysis was thought of primarily in terms of rehabilitating the patient with terminal renal disease. It is evident that the emphasis is shifting, and that centers will be used primarily to prepare patients for transplants; to dialyze post-transplant patients, when necessary; and to care for patients whose transplants have failed. There is no doubt that some people can be completely rehabilitated by means of chronic dialysis alone.

In the light of our current knowledge it does not appear that the long-term dialysis patient is in any greater jeopardy for subsequent transplantation than is his colleague who has been dialyzed only a few times before the transplantation. We must recognize also that there may be a considerable period of inactivity (three to six months) following transplantation, during which the patient must be kept under careful surveillance for the purpose of detecting and treating major or minor rejection phenomena. At the present time the attrition rate for dialyses and transplants are approximately the same—between 10 and 15 per cent per year. We must assume that organ homotransplantation and perhaps heterotransplantation will offer these people a better chance for survival in the future.

The following guidelines seem to be forming: As the patient with end-stage renal disease decompensates under rigid medical management, he will be considered for further treatment. If all modes of treatment are available and if the patient is an adolescent or pre-adolescent, considerable thought should be given to immediate transplantation, especially if a living, related donor is available. Some degree of preparation, including dialysis, may be necessary for this group. Older individuals with living, related donors can be accepted for dialysis at a medical

center, with the contingency that a transplant is to be done if a suitable match can be made with a living donor.

When no living, related donor is available, cadaver transplantation should be considered. However it is now apparent that there are many more people who qualify for cadaver transplants than can be cared for in the time and space available. With improved techniques of preservation, however, it may be possible to "bank" cadaver organs, and thus allow a closer matching of cadaver organs with proposed recipients, and also allow an accumulation of usable organs. At present it is possible to type and match organs within a three- to four-hour period.[16]

SUMMARY

Suitable patients can be rehabilitated by means of maintenance dialysis. The ultimate goal for most patients is transplantation. At the present "state of the art," a combination of transplantation and dialysis can salvage most, in terms of satisfactory added "patient-years."

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Early Recognition and Prompt Evaluation of Spinal Deformity

WALTER P. BLOUNT, M.D.
Milwaukee, Wisconsin

THE MILWAUKEE BRACE is generally accepted by orthopaedic surgeons as the first appliance in medical history to correct thoracic scolioses in growing children without operation.[1] Its effectiveness in improving a moderately severe curvature is shown in Figure 1. The cooperative girl with a skeletal age of 14 with poor posture, a curve of 50°, and the trunk shifted to the right can be given a back that looks straight with excellent posture and enduring normal function. Specific exercises[2] in a well made brace are capable of correcting considerably greater curves if the patient is still growing.

The result is still better if she appears for treatment at 13 with a 25° curve. My crusade this year as expressed in the title is for the early recognition and prompt evaluation of these deformities with prompt referral for treatment at the optimum age.

A girl with a skeletal age of more than 15 will improve her posture and appearance with such treatment but will obtain little permanent correction of the lateral curvature. The upper limit for boys is two years older.

The cooperative effort of the orthopaedic surgeons, orthotists, and other paramedical workers of Milwaukee has produced a valuable medical tool (Figure 1B) that has been improved over the past 15 years by suggestions from orthopaedic teams from Minneapolis to Helsinki. The 1969 brace is not only efficient but more comfortable and inconspicuous (Figure 2). Orthotists have learned to make good braces and orthopaedic surgeons, to use them. The greatest difficulty at this point is that the patients are often referred for treatment a year or more too late to obtain good results.

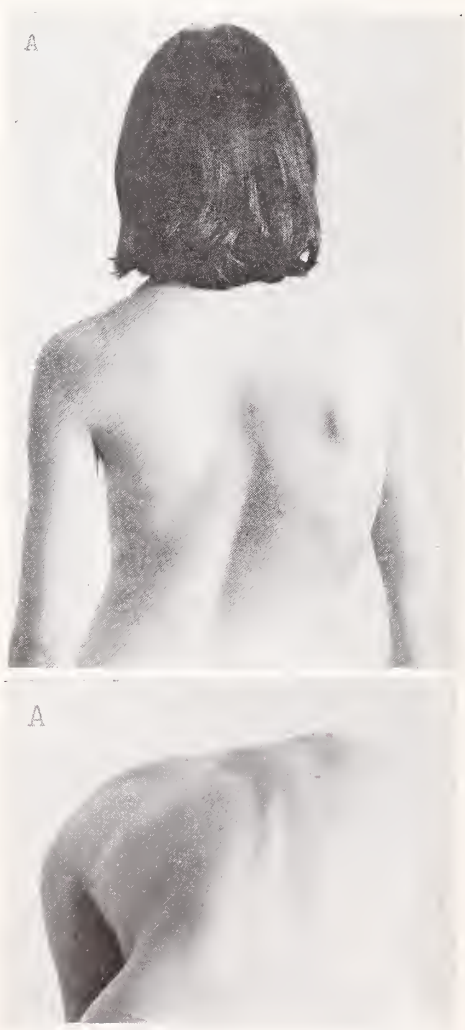


Figure 1A—Skeletal age 14. A right convex thoracic curve with an overhang to the right and a prominence of the scapula and ribs on the right side were noticed only four months before this picture was taken. In the forward bent position the rib prominence was more noticeable.

Abbreviation of a presentation at the May 13-15 annual meeting of the Wisconsin Medical Society, republished by permission from the August, 1969, issue of the WISCONSIN MEDICAL JOURNAL. For reprints, address the author at 2040 West Wisconsin Avenue, Milwaukee 53233.

Unfortunately, the beginning deformity is not noticeable under ordinary clothing. In our modern society adolescent girls are rarely seen in the nude, and significant lateral curves go unnoticed for several years. Occasionally a physician, a school nurse or a gymnasium teacher will pick up an early scoliosis, but for the most part the deformities are well developed before they are recognized.

The crusade must start by teaching the mother to look at her daughter or son at regular intervals during the growing years. After the child is inspected while standing, he must bend forward. Slight deviations such as those in Figures 3 and 4 are minimized by wishful thinking to "slight posture habits that will be outgrown." But when the bent back shows a definite rib prominence on one side, the mother

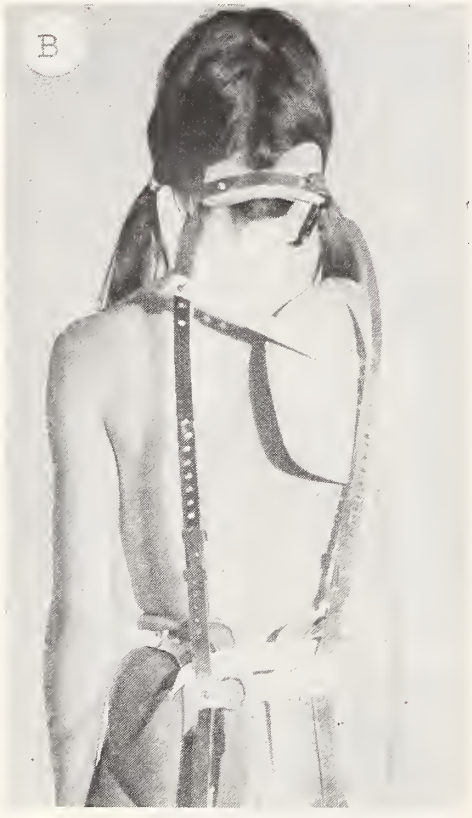


Figure 1B—A Milwaukee brace held the torso in the corrected position.

With exercises in the brace the curvature was repeatedly corrected. The rib hump was diminished and the thoracic valley on the left side was partially filled out. The improved position was maintained by the shoulder pad which provided passive correction for the rib hump when the patient was supine. Gentle distraction was furnished by the occiput pad opposed by a closely molded pelvic girdle.

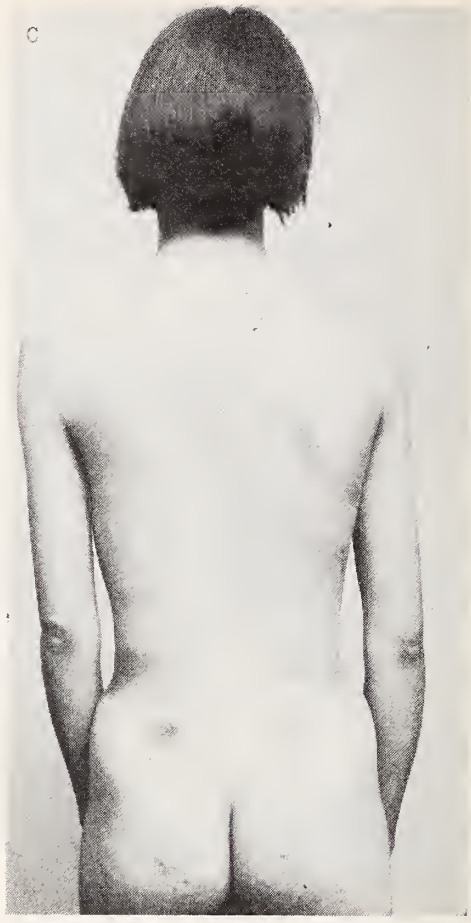


Figure 1C—Three years later, the spine looked straight. The diminished curves were well compensated. The torso was symmetrical except for a slight residual rib hump. There was no loss of mobility and no scar.



Figure 2—The modern brace is streamlined for comfort and efficiency. It is less objectionable to adolescents because it cannot be seen above a turtle necked sweater or a scarf. The girl has obtained a beautiful result with no bite deformity because all of the holding force is on the front of the throat. The modification is a boon to the orthodontist because it frees the jaw completely.

is looking at a structural scoliosis. This asymmetry is the early sign of a deformity that is usually rapidly progressive. The child should be taken to the physician immediately. After two years without effective treatment, the deformity may become as bad as that of the unfortunate girl in Figure 5.

The informed physician will recognize the scoliosis by careful inspection particularly with the child in the forward bent position. He will confirm the diagnosis with an x-ray film taken in the standing position or send the child at once to an orthopaedic surgeon.

One difficulty is that the medical fraternity, including some orthopedic surgeons, is too apt to wait and watch these deformities instead of acting promptly.

Radiologists who read chest and gastrointestinal films should not stop with reporting a lateral curvature. They should push the alarm button. They, too, must join the crusade and notify the pediatrist or the generalist that they have discovered a deformity which will probably be progressive and should be evaluated by a medical man who is truly interested in spinal curvatures.

A 10° curve may be innocuous, but the patient must be reexamined at intervals of three months with x-ray views made in a standing position. If there is any doubt about progression, the curves should be measured accurately, preferably by the Cobb technic.[3] Succeeding x-ray films should be compared with the original. A consistent increase of 10° or 15° is an indication for prompt action. At this stage a spine can be straightened completely by the Milwaukee brace and exercises in the brace. There is every advantage and no disadvantage to starting the treatment immediately.

If the child is young and the spine is kept perfectly straight for several months, the patient may be partially weaned from the brace and wear it at night only.[4] There is almost no objection from the child to this routine.

Not only the radiologist but also the pediatrist and the generalist must recognize the urgency of the situation. A delay of six months may mean an increase in the curve of 20° to 30°, some of which will never be regained without an extensive operation. Structural deformity of the vertebral bodies with wedging cannot be completely overcome by any method except during infancy and early childhood.

There is justification for the careful observation of a small curve without treatment. An infantile idiopathic scoliosis may prove to be of the resolving type and disappear spontaneously in a few months. It may, however, be a vicious progressive deformity that proves to

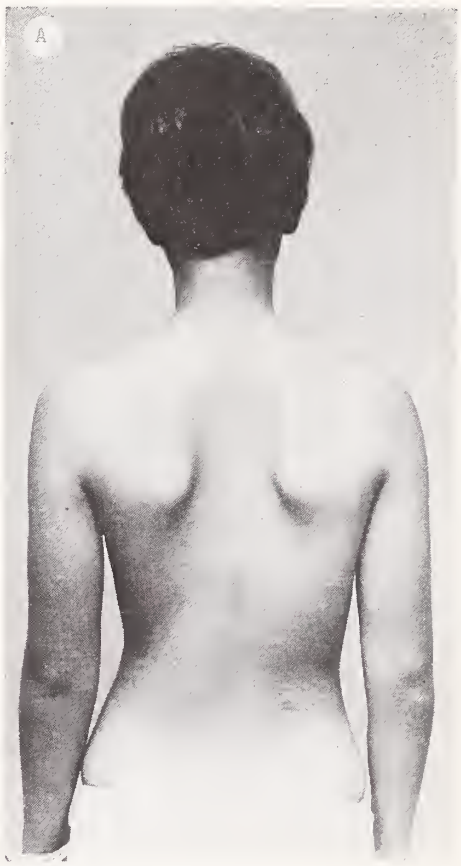


Figure 3A—Asymmetry of the torso is clearly evident but the mother dismissed it as a postural habit.



Figure 3B—She should have had the patient bend forward to bring out the rib hump which is the sign of a structural scoliosis.

be resistant to all treatment except for that with the Milwaukee brace, sometimes combined with bed rest and traction. Occasionally an idiopathic scoliosis in an older child will not progress, but this is the rare exception. Most of them become worse with catastrophic rapidity during adolescent years.

Even congenital scolioses are usually progressive. The unfortunate aphorism that "congenital scolioses do not become worse" arose from the observation of a few curves with hemivertebrae. It is true that some of them remain unchanged over several years of growth, but one has no assurance that the angular deformity will not suddenly start to increase at any time, particularly during adolescence. All spinal curvatures should be carefully followed during the growing years and reexamined at intervals not exceeding six months.

The remarkable thing is that some seemingly rigid deformities can be maintained in an improved position by a Milwaukee brace. This is true particularly of the characteristic scolioses associated with von Recklinghausen's neurofibromatosis, Marfan's disease, and the rarer neuromuscular disorders.

The effective management of the more complicated scoliosis problems requires considerable experience.[5] The principles of treatment have been more clearly understood in the decade following 1958 and the technics have advanced as rapidly as those in heart surgery. With our present excellent anesthesiology and the replacement of lost blood, long segments of the spine can be fused at one sitting. We no longer rely on external fixation alone for postoperative immobilization. Scientifically engineered distraction rods aid in the correction of deformity on the operating table and the postoperative immobilization which is so important in obtaining solid fusion. Neglected curves that jeopardize respiratory function can be greatly improved by skeletal traction on the skull with distraction on the bones of the lower extremities. This sophisticated procedure may be simplified by the use of accessories to the Milwaukee brace (Figure 6). When the fusion is solid, the halo and traction frame are removed and the patient is ambulatory during convalescence in a conventional brace.

The anterior or lateral approach makes it possible to resect vertebral bodies and to graft them. Internal fixation is remarkably effective when applied anteriorly.

But all of these brilliant operative approaches to the problem are only salvage procedures. The best treatment is still the early

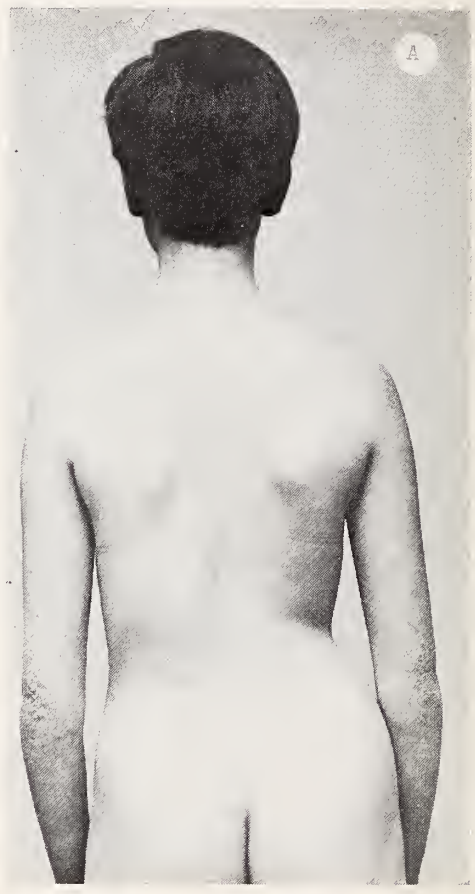


Figure 4A—A prominent hip will be observed in fitting a skirt. It must not be accepted as an individual peculiarity but recognized as the first sign of a vicious deformity which may progress rapidly.



Figure 4B—When the child bends forward, the prominence of the transverse processes and the lower ribs on the left side are clear evidence of a structural deformity which may become catastrophic as in Figure 5.

recognition, prompt evaluation, and nonoperative treatment of the curves with the Milwaukee brace and exercises in the brace. The ultimate result is cosmetically just as good without the risk involved with operation. There is no postoperative stiffness and no scar.

If we are to avoid extensive surgical procedures and obtain the best possible result, we must reach the mothers, the pediatrists, and the generalists. The patients must come to orthopaedic surgeons early when the curvatures are small and the patients are growing. Then they will grow straight in the Milwaukee brace instead of continuing to grow more crooked.

The treatment will not be successful, however, unless the Milwaukee brace is efficient and comfortable. The orthotist who made it must be readily available to modify the brace as the patient grows and the curve patterns change. The orthopaedic surgeon must be well informed and genuinely interested in the nonoperative treatment of scoliosis. The patient must be immature and dedicated to correcting the deformity. The parents must be cooperative and not too permissive.

In recent years we have found that better results are obtained more rapidly when the patient performs specific exercises in the brace under the direction of a specially trained physical therapist.[2] Finally it is important that the patient be examined by an orthodontist at the start of the scoliosis treatment. The modern brace (Figure 2) does not cause any jaw or bite deformity. It is important that a record be made of the condition of the teeth before



Figure 5—This child was taken to a chiropractor when the deformity looked like that in Figure 1. Under his "treatment" she became rapidly worse. The credulous mother was satisfied for two years by a consultation with another chiropractor who assured her that the patient was improving. There is good reason why these practitioners are not accredited—but they are good salesmen.

This poor girl required extensive bone surgery with the use of Harrington rods. This treatment could have been avoided had she come to the orthopaedic surgeon when the deformity was first noticed.



Figure 6—Modification of the brace by the application of a halo to the upper end and a traction frame to the lower, has helped to solve the most sophisticated problems occasioned by extreme neglected deformities.

treatment is begun. The brace should not be blamed for preexisting deformities. Orthodontic treatment that was in progress can be continued while the patient wears the brace.

If these requirements are met and treatment started before the patients are mature, more than 50 per cent of the spinal curves that have previously required operative treatment will improve with the Milwaukee brace and exercises in the brace so that cosmetically acceptable and normally functioning backs are obtained without operation.

SUMMARY

All young children with scolioses of any etiology and particularly adolescents with moderately severe idiopathic curves and Scheuermann's round back should be treated with a Milwaukee brace and exercises in the brace. If good braces are available and treatment is started early, the results will usually be excellent. If parents and physicians learn about this and send patients to well informed orthopaedic surgeons promptly while the curves are still small, operations will be necessary only for neglected patients and a few stubbornly progressive curves.

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Hypertrophy of the Ileocecal Valve

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Waterloo

HYPERTROPHY of the ileocecal valve is an overgrowth of the normal tissues surrounding the orifice between the terminal ileum and the cecum. Lipomatosis about the valve is similar to it, and for practical purposes the two conditions can be considered together. Either one produces a radiologic picture in which early malignancy is difficult to exclude.

The ileocecal valve is formed by the invagination of the end of the ileum into the cecum. It consists of superior and inferior segments, which are fused at each end. The orifice becomes slit-like when the cecum is distended, and thus it nearly closes and prevents backflow into the ileum. Immobilization of the cecum, either congenital or postoperative, frequently is associated with ileocecal abnormalities.

Enlargement about the ileocecal valve does not produce characteristic symptoms. Distention, "gas," and occasional cramp-like pains several hours following a meal have been reported as complaints of patients with this condition, but in most cases there are no definite symptoms.

Protrusion of the enlarged valve produces a characteristic defect in the cecum, as seen radiographically. The valve appears rounded and smooth, and the terminal ileum is central. The picture is difficult to differentiate from one indicating early malignancy if the terminal ileum has not filled and the channel thus cannot be visualized. Also, malignancy can be suspected if the enlargment is unusually great.

Thorough preparation of the patient is essential, prior to x-ray. Castor oil is still the best evacuant of the cecum. Then the barium enema must be given under pressure, so that it completely fills the cecum. Abdominal palpation and manipulation can then be performed for the purpose of distorting the ileocecal valve,

Dr. Kestel is a board radiologist, and Dr. Preece is a board surgeon.

and thus aiding in the backflow of the barium. In aged or sensitive individuals, a Bardex retention enema tube is necessary, for such patients frequently are unable to retain the enema without an occlusion of the rectum. But even under ideal conditions the ileocecal valve may be too competent, and in 10 to 20 per cent of examinations backflow cannot be made to occur, and the terminal ileum will not be seen.

One may wish to repeat the examination at intervals for the purpose of observing changes in size, but in doubtful cases exploratory surgery may be advisable.

CASE REPORTS

Case 1 was a white female 73 years of age. Her chief complaints were of pain and gas in the lower abdomen, and moderate anemia. She had undergone a cholecystectomy and appendectomy 12 years before. X-ray demonstrated a rounded indentation lateral to the ileocecal valve. The valve was markedly hypertrophied, and new growth was not excluded. On a repeat examination the findings were identical. At exploratory surgery, the mass in the cecum was palpated, and a fatty lobule the size of a marble was removed from the labia of the valve. The pathologist reported: "Mass 2 cm. by 1 cm. by 1 cm. Submucous areas totally replaced by lobular, adult-type adipose tissue. Lipomatosis of ileocecal valve."

Case 2 was a white female 36 years of age. Her chief complaints were of pain and gas in the lower abdomen. She had had an appendectomy 15 years earlier. X-ray revealed a mass along the medial wall of the cecum in the region of the ileocecal valve. It was rather large for ileocecal hypertrophy, and neoplasm was considered.

At surgery a mass was palpated through the cecal coats. It was about 3 cm. in diameter, and it was then removed from the mucosa around the ileocecal valve. The pathologist diagnosed it as a benign villous adenoma. There was no evidence of invasion.

Case 3 was a white male, 68 years of age. His chief complaints were of pain and gas in both the upper and the lower abdomen. His history included an old duodenal ulcer syndrome, but he had undergone no previous surgery. Moderate anemia was present.

The x-rays revealed a polypoid density along the inferior margin of the cecum which was thought probably due to ileocecal hypertrophy. The x-ray examination was repeated three months later, and the findings were essentially unchanged. At surgery a small mass was palpated in the cecum, but all that could be found were enlargement of the ileocecal valve and fatty overgrowth in both labia. No biopsy was taken, and the diagnosis was lipomatosis.

Case 4 was a white female 73 years of age. Her chief complaints were of pain and gas in the lower abdomen, and pain in the right pelvis. She had had no previous surgery. X-ray showed an unusually prominent ileocecal valve. Another radiologic examination one year later showed a rounded defect at the ileocecal valve. It had increased slightly in



Figure 1. Benign ileocecal hypertrophy.



Figure 2. Lipomatosis (Case 1).



Figure 3. Villous Adenoma (Case 2).



Figure 4. Lipomatosis (Case 3).

size, but was not suspected of being a neoplasm. At surgery a mass was palpated in the cecum. It proved to be the size of a walnut, it had a flat base, and it was attached to the lateral labia of the ileocecal valve. The mass was dissected free from the base. The pathologist reported that the 3 x 1 cm. lesion represented carcinomatous changes in preexisting villous adenoma, and he diagnosed it as a papillary type of proliferation of glandular elements. The mucosa and muscularis appeared normal.

DISCUSSION

The above are no more than brief sketches of our cases. No other findings were relevant except that all four patients had occult blood in the stool. In the exploration of these lesions the most advantageous approach was an incision through the cecal coat where the muscular tenia converge into one broad band. It can be mobilized easily, without trauma to the cecum. The incision provides adequate exposure, and because the layers are clearly distinguishable, the closure is simplified.

What causes hypertrophy of the ileocecal valve? The small intestine empties its contents into the cecum by peristalsis, and thereafter the muscular bands of the large intestine exert the power which propels the feces through the colon.

It is uncertain what triggers the evacuatory process. There are three possibilities: (1) neurogenic impulses; (2) the accumulation of mass, initiating action by means of its very bulk; or (3) a chemical reaction produced by chyme. Certainly, however, anything that interfered with normal contracture of the intestine could cause or help to cause hypertrophy of the valve.

Although we have had occasion to observe only four cases, we have noted some common factors that may be significant. Cases 1 and 3 were in patients who had had previous appendectomies and were found to have inflammatory adhesions. There was a binding down of the ileum and cecum in each instance, obstructing the ileum and firmly fixing the cecum to the floor of the abdomen. Patient number two had a pelvic abscess, with old adherent fibrotic adhesions fixed firmly to the cecum. Patient number four had muscular

bands, apparently congenital, fixed to the pelvic brim and wall. These similarities would seem to justify the conclusion that interference by adhesions had impaired the motive forces in both the ileum and the cecum. Then, naturally, overstimulation of intestinal movement would produce hypertrophy of the valvular segments. Anatomically it is necessary for both the ileum and the cecum, including the linea, to be free and in normal relationships with each other if the ordinary function of the intestinal stream is to proceed. Now hypertrophy of the valve, *per se*, is not a true abnormality in the sense of constituting pathology. Rather, it is a curious physiologic development due to obstructive extrinsic adhesions.

Wolfer, in dissecting 125 specimens, found that the cecum was fused to the posterior parietes in only 5 or 6 per cent, and was adherent to them over more than a third of its length in only 11 per cent of cases. Because adherence does not produce interference with normal contractions of the cecum, we can assume that under normal conditions there would be no fixation of the cecum or this portion of the ascending colon. The truly fixed portions of the large intestine are the lower sigmoid, the sigmoid colon and the rectum, where 80 per cent of all colonic carcinomas are located. Eighty per cent of all villous adenomas are also located in these segments. Fewer than six per cent of carcinomas are found in the ascending colon and cecum, and only about two per cent of villous adenomas are localized in the least-fixed portion of the colon, the cecum. There is no definite proof that stasis or immobility contributes to the genesis of carcinoma, but our findings, together with the statistics we have quoted from the literature, suggest that it may be a factor.

At the risk of exaggerating a doubtful premise, we should like to urge surgeons to keep the following points in mind when they do incidental appendectomies. Look to see whether any adhesions may be interfering with normal peristalsis in the ileum, or whether the cecum is bound down—especially whether the adhesions involve muscular bands. A careful peritonealization of the appendiceal stump would tend to guarantee continued normal mortality for the ileum and cecum.

SUMMARY

Hypertrophy or lipomatosis of the ileocecal valve produces a rounded defect along the medial side of the cecum, as seen on x-ray. On a roentgenographic basis, exclusion of malignancy may then be uncertain. Immobility of the cecum is frequently associated with ileocecal hypertrophy. It may also be a factor in the development of a new growth in this



Figure 5. Villous adenoma with carcinomatous changes (Case 4). At the left is the original x-ray; on the right is a film taken one year later.

area. Ileocecal hypertrophy, once found by x-ray, may be the first stage of a progressive lesion. Follow-up studies at six months to one year should be advised.

Although we offer only four cases, our experience may stimulate further observations by others, and also a decision as to whether the x-ray findings alone are a sufficient reason for exploring the cecum.

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One Year's Experience in

A Community Hospital Coronary-Care Unit

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Mason City

CORONARY HEART DISEASE together with its most serious complication, acute myocardial infarction, causes an estimated 500,000 to 600,000 deaths per year in the United States.[1] Prior to the introduction of closed-chest cardiopulmonary resuscitation techniques, cardiac monitoring, and defibrillating and pacing equipment, the mortality from myocardial infarction in the nation's hospitals remained at about 35 per cent.[2] In 1962 the development of intensive coronary-care units began to exert a favorable effect on the mortality rate from acute myocardial infarction. The evolution of concepts and techniques for such units was very well described by Kimball in a recent issue of the JOURNAL OF THE IOWA MEDICAL SOCIETY.[3]

Most early coronary units were located in large urban hospitals, but it seemed plausible to expect improved mortality rates through the use of the same approaches in a small rural-community hospital, although perhaps more responsibility would have to be delegated to specially-trained nurses. Such a unit was proposed for a 318-bed hospital in a city of 31,000 where no full-time house-staff doctors were available.

On June 26, 1967, St. Joseph Mercy Hospital, in Mason City, Iowa, was awarded a grant by the United States Public Health Service for the development of an intensive coronary-care unit.*

The basic objectives were to establish and operate a four-bed demonstration and study coronary-care unit for acute myocardial infarction cases, and to compare the results of treatment given in such a facility with regular care and treatment as reflected in morbidity and mortality statistics.

A committee of staff internists, together with the hospital administration and nursing personnel, immediately began planning and constructing the unit. A four-bed unit was constructed so that the nurses could maintain visual observation of each room from the nursing station. In addition, electronic monitoring equipment was installed, including both bedside and slave nursing-station units. During the

* Contract PH 86-67-273, Department of Health, Education and Welfare, Public Health Service, Bureau of Disease Prevention and Environmental Control, National Center for Chronic Disease Control.

constructing and equipping of the unit, the physician members of the project committee* carried out a training program for the nurses who were to staff it.

Two of the nurses received five weeks of additional training at St. Joseph's Hospital, St. Paul, Minnesota, also under the sponsorhip of the Public Health Service.

On October 26, 1967, on the completion of the training program and the construction work, the Coronary Care Unit was opened, and it has been in continuous operation since that time. This report covers its first full year of operation.

METHODS

Patients with documented or suspected acute myocardial infarction, severe arrhythmias or pacemaker problems were eligible for admission to the unit. It was planned that all acute infarction patients should be monitored for at least five days, but there were times when patients who were doing well had to be moved out after a shorter period to make room for new ones requiring care. To date no such instance has resulted in any harm. Members of the staff committee have cooperated in deciding the patients' lengths of stay in the unit, so that on only very few occasions has an acute infarction patient been denied admission to the unit.

No fewer than two of the following criteria for the diagnosis of acute myocardial infarction were required for our statistical purposes: (1) an acceptable clinical history; (2) recognizable EKG infarction patterns; (3) an elevation of the serum SGOT above 60 units.

During the first year a total of 254 patients were treated in the Unit, for an average occupancy rate of 3.0 patients per day. Of these, 107 had definite acute myocardial infarction. Twelve patients expired in the Unit, for a mortality rate of 11.2 per cent, but three patients expired on the general medical service after being dismissed from the Unit, so we must say that the mortality figure for all patients treated in the Coronary Care Unit during its first year of operation was 14.0 per cent.

* Initially it consisted of the author, as chairman, L. J. Kirkham, M.D., as co-chairman, H. G. Marinos, M.D., J. S. Westly, M.D., and L. C. Chang, M.D., the hospital administrators and the directors of nursing service. H. W. Beard, M.D., and W. C. Rosenfeld, M.D., were added to the Project Committee during its first year of operation.

We compared this figure with our mortality rates from acute myocardial infarction for the last half of 1965, all of 1966, and January through September, 1967:

ACUTE MYOCARDIAL INFARCTION MORTALITY RATES AT ST. JOSEPH MERCY HOSPITAL, MASON CITY, BEFORE OPENING OF CORONARY CARE UNIT

Period	Total Patients	Deaths	Mortality Rate Per Cent
July-December, 1965	42	8	19
All of 1966	118	31	26
January-September, 1967	76	24	32

DISCUSSION

Twelve of the 107 patients with acute infarcion treated in the Unit developed death-producing arrhythmias. Four of them were successfully defibrillated and resuscitated, and they recovered. We believe that this comparatively low incidence of cardiac arrest is attributable to close monitoring and prompt use of antiarrhythmic drugs by the coronary care nurse-specialists. Their standing orders allow them to use lidocaine and atropine intravenously, plus immediate defibrillation when required, without waiting for physician help.

The average length of stay in the Coronary Care Unit for patients with acute myocardial infarction was six days. Patients with acute coronary insufficiency without infarction were treated in the Coronary Care Unit for an average of four days. Those with severe arrhythmias required an average of four days. Patients requiring cardioversion were in this group. Twenty-two patients were admitted to the unit but subsequently were found not to meet the criteria. They were moved out after an average of two days.

Twelve patients with acute myocardial infarction were treated on the general medical service during the year without being admitted to the Coronary Care Unit. One of them refused to enter the Unit; two could not be admitted because no beds were available; and some others were past the initial stage of infarction. The remaining five had their infarctions as a part of a terminal unrelated illness, and in most instances the infarctions were diag-

nosed at autopsy. It is not thought that this group constituted a plausible set of controls for purposes of comparison. Those patients had a mortality rate of 42 per cent, however.

SUMMARY

An intensive coronary care unit in a community hospital reduced the mortality from acute myocardial infarction, for those patients treated in the unit, to 14 per cent during its first year of operation.

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3. Kimball, J. T.: Aggressive management of acute myocardial infarction. J. Iowa M. Soc., **59**:207-210, (Mar.) 1969.

New Medical Curriculum at U. of I.

Beginning this fall, 129 freshman medical students at The University of Iowa are taking a new academic road toward the M.D. degree. Dr. Robert C. Hardin, vice-president and dean for Health Affairs, said, "The program cannot be described as 'revolutionary' but it does represent a significant change in the traditional pattern of educating physicians."

Design of the new curriculum is the result of nearly four years of work by special committees of medical faculty members and students and thorough discussion by all members of the faculty, Dr. Hardin said. Chairman of the Medical Education Committee during the years of planning were Drs. Michael Bonfiglio, professor of orthopedics; William C. Keettel, professor and head of obstetrics and gynecology; Daniel B. Stone, executive associate dean of the College of Medicine; Robert Barker, professor of biochemistry; and Albert S. Norris, professor of psychiatry.

Changes in the curriculum, which will be phased in year by year, will include:

1. During the first two years, students will complete their required basic medical science study in three rather than in four semesters. The fourth semester will be devoted entirely to an introduction to clinical medicine. In the old curriculum, students had only brief sessions dealing with clinical medicine during their second year.

2. The third year will consist of a summer session and two semesters of clinical clerkships in which the students participate in patient care under the supervision of staff physicians of the Health Center.

3. The fourth year will bring the biggest departure from the old curriculum. With the exception of nine weeks of clerkships in four areas, the student will spend his senior year in an intensive study program that will best meet his career needs. Students previously have spent the entire year in clinical clerkships similar to those of the third year. During this fourth year, a student may elect to concentrate on learning the principles of family medicine. Dr. Hardin said the new curriculum structure also could lead to shortening the total training of physicians by one year, since students taking the intensive study program in the fourth year might be able to forego the traditional year of hospital internship following graduation.

Because of the vast body of medical knowledge and swift advances being made today, it is impossible for anyone to learn all there is to know in the field, Dr. Hardin said. It has become necessary to define a "core" of medical knowledge which can be taught during a student's four years of medical college and which will provide a solid background for a lifetime of self-teaching, he said. The Medical Education Committee's report on the new curriculum notes that only continuing personal study, periodic remodeling of working principles, flexibility of mind, and adaptability to rapid changes can prevent a decline of medical competence.

These factors were central in the planning of the new curriculum. Providing a flexible program of learning with an emphasis on developing the habit of continuing self-education were key objectives.

Increased amounts of unscheduled time have been provided to allow the student to learn in a proper fashion. Where possible, unscheduled periods have been arranged to include two half-days which will be the same throughout the four years to allow students to take elective courses in the College of Medicine or in other colleges of the University.

Efficient reorganization of the basic sciences—biochemistry, anatomy, pathology, microbiology, physiology and biophysics, and medical pharmacology—will provide time for the introduction of courses in basic genetics, endocrinology, neurobiology, and the basic science of behavior. The third and last semester of the new basic science curric-



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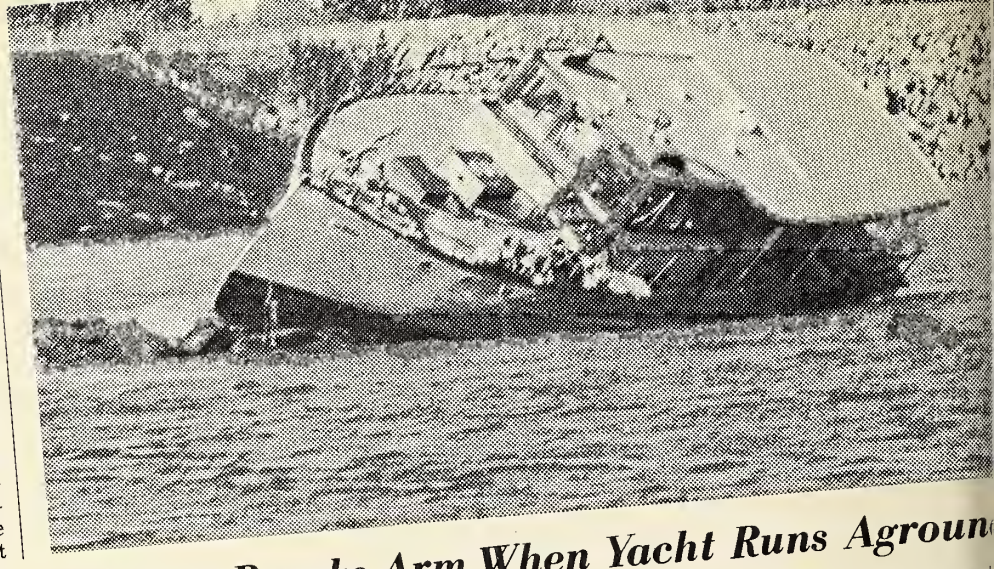
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ulum will also include a course concerned with the scientific method, designed to give the students an appreciation of the philosophy of research, the design of experiments, and methods to be used in seeking new knowledge.

The fourth semester will be devoted to correlating and integrating the core of basic science information with the clinical experience ahead. Students will have supervised contact with patients during all phases of the course. In addition to medical history taking, physical diagnosis, laboratory diagnosis, and medical jurisprudence, the semester will include additional instruction in the fundamentals of diagnostic radiology, nutrition, anesthesiology, preventive medicine, organ physiology, and special emphasis on psychological diagnosis.

Clinical clerkships in the third year will include eight weeks each of medicine, surgery, pediatrics, obstetrics and gynecology, psychiatry and medicine; two weeks each in dermatology and anesthesiology; and a four-week vacation. During the third year, the student and a faculty advisor will begin to develop a plan for the student's intensive study program during the fourth year.

General objectives of the Intensive Study Program include:

1. Give each student time to study in depth one or more areas of medicine.

2. Provide the student with the intellectual tools, the skills, and the habit of self-education.

3. Give the student an opportunity for reflection so he can assimilate and correlate further the core of his working knowledge.

Each student will have to complete 30 semester hours of University credit during his last two semesters.

Faculty members will assume responsibility for defining various intensive study proposals, or the student can present his own plan of study for approval by a faculty supervisory group.

The recently established Office of Medical Education in the College of Medicine, directed by Dr. Richard M. Caplan, professor of dermatology, will serve as liaison in the development of many aspects of the new curriculum, including evaluation.

Students also will be involved in certain aspects of evaluating the new curriculum and the teaching effectiveness through a student committee which will survey the student body.

The Office of Medical Education also will serve to foster interest in the faculty's teaching ability; assist the faculty at its request concerning techniques of student or teacher evaluation; encourage and cooperate with the faculty members in developing innovative programs in medical education; and direct the College's Continuing Education Program for practicing physicians.

Workshop on Delivery of Medical Care in the 1970's

Delivery of Medical Care in the 1970's will be the subject of a two-day workshop for physicians, medical educators, hospital administrators and public officials to be held on Friday and Saturday, November 21 and 22, at the Ambassador Hotel West, Chicago.

The participants will be greeted by Walter C. Bornemeier, M.D., president-elect of the AMA. Presenting the problems of the inner city will be Lloyd A. Ferguson, M.D., associate professor of medicine at the University of Chicago. The problems in the outer city and suburbs will be discussed by John A. McLaren, M.D., vice-president, patient care services at Evanston Hospital. Mr. Roy E. Will, assistant secretary of the Illinois Agricultural Association, will discuss the problems of rural areas.

Other headliners will be James H. Cavanaugh, Ph.D., deputy assistant secretary for health and scientific affairs, Department of Health, Education and Welfare; Dwight L. Wilbur, M.D., immediate past-president of the AMA; Ivan L. Bennett, M.D., director of New York University Medical Center; and Mr. Robert M. Ball, commissioner, Social Security Administration.

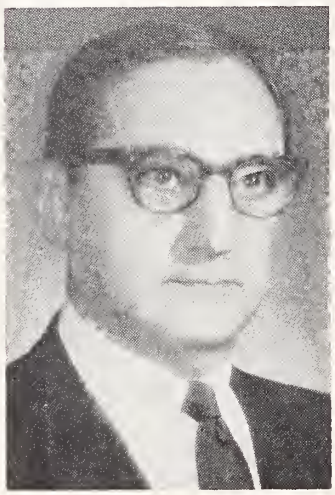
Paul S. Rhoads, M.D., chairman of the Board of Governors of the sponsoring organization, the Institute of Medicine of Chicago, says that health-care professionals must decide whether the system for delivery of medical care will grow like Topsy, or be examined critically and planned rationally to meet future needs. The workshop is intended to encourage and assist in the rational approach to meeting these needs.

Registration, which includes lunch and dinner on Friday, is $35 for members of the Institute of Medicine of Chicago, and $50 for non-members. Registration will be limited to 500 people. Reservations should be made by writing or phoning the Institute at 332 South Michigan Avenue, Chicago 60604 (telephone 312-663-0040). One of the members of the program committee is Charles C. Edwards, M.D., who practiced surgery in Des Moines several years ago.

Announcement by the American Board of Family Practice

The American Board of Family Practice announces that it will give its first examination for certification in various centers throughout the United States on February 28 and March 1, 1970. Information regarding the examination and eligibility to take it can be obtained from Nicholas J. Pisacano, M.D., secretary, American Board of Family Practice, Inc., University of Kentucky Medical Center, Annex # 2, Room 229, Lexington, Kentucky 40506.

President's Page



Some people, it seems, just will not go to a physician's office for an immunization, though there is no doubt in the world that it can be administered most safely there. Our public-health officials tell us that approximately 15 per cent of Iowans belong to that group.

Commissioner J. F. Speers and his staff are using that statistic in urging one-time, mop-up immunization clinics. At most, they say, no more than 85 per cent of susceptibles come to doctors' offices for protection against red measles, but a 90 to 95 per cent immunization level is desirable, if not essential, to make us secure against future outbreaks.

The course they are recommending apparently has been followed in approximately 80 of Iowa's 99 counties. Physicians in the remaining counties should give careful thought to the various alternatives available.

A more detailed discussion of the problem can be found in this month's "In the Public Interest" ("green sheet"), facing page 1030.

When the IMS House of Delegates endorsed the State Health Department's policy statement regarding immunizations, in 1967, it sanctioned mass clinics, provided that county medical societies approved and undertook to supervise them carefully.

On this, as on most other issues, the IMS takes the logical position that each county medical society should choose the way in which local health situations are to be handled. That is where responsibility for such decisions really belongs.

Wm M. Kingston MD

President



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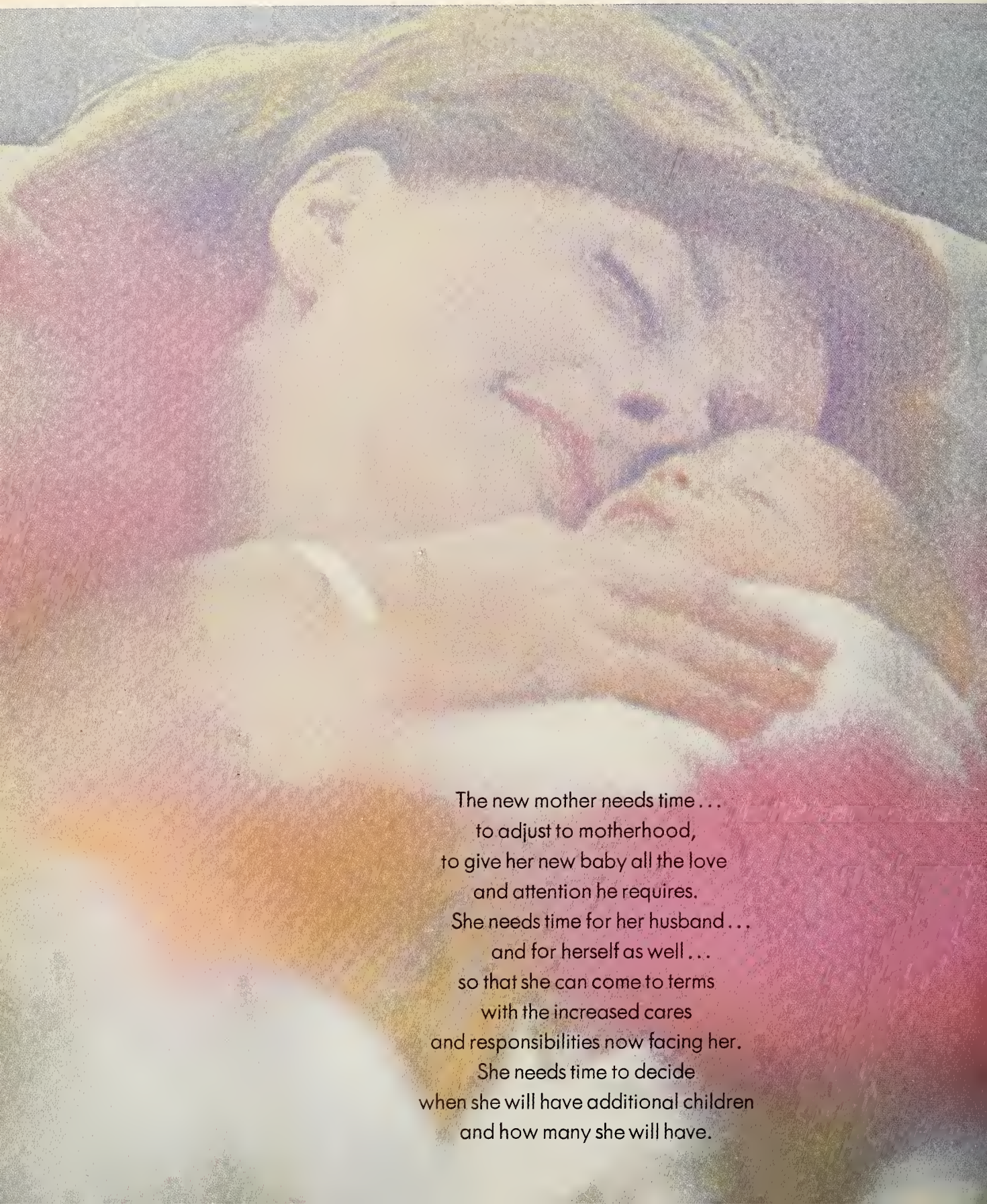
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Indication—Oral contraception.

Contraindications—Thrombophlebitis, thromboembolic disorders, cerebral apoplexy or a past history of these conditions, markedly impaired liver function, known or suspected carcinoma of the breast, known or suspected estrogen-dependent neoplasia, undiagnosed abnormal genital bleeding.

Warnings—Watch for the earliest manifestations of thrombotic disorders (thrombophlebitis, cerebrovascular disorders, pulmonary embolism, retinal thrombosis); if present or suspected discontinue the drug immediately.

British studies reported in April 1968[1,2] estimate there is a seven- to tenfold increase in mortality and morbidity due to thromboembolic diseases in women taking oral contraceptives. In these controlled retrospective studies, involving 36 reported deaths and 58 hospitalizations due to "idiopathic" thromboembolism, statistical evaluation indicated that the differences observed between users and non-users were highly significant. The conclusions reached in the studies are summarized in the table below:

Comparison of Mortality and Hospitalization Rates Due to Thromboembolic Disease in Users and Non-Users of Oral Contraceptives in Britain.

Category	Mortality Rates		Hospitalization Rates (Morbidity)
	Age 20-34	Age 35-44	Age 20-44
Users of Oral Contraceptives	1.5/100,000	3.9/100,000	47/100,000
Non-Users	0.2/100,000	0.5/100,000	5/100,000

No comparable studies are yet available in the United States. The British data, especially as they indicate the magnitude of the increased risk to the individual patient, cannot be applied directly to women in other countries in which the incidences of spontaneously occurring thromboembolic disease may differ.

Discontinue medication pending examination if there is sudden partial or complete loss of vision, or sudden onset of proptosis, diplopia or migraine. Withdraw medication if papilledema or retinal vascular lesions are found.

Since the safety of Ovulen in pregnancy has not been demonstrated, it is recommended that pregnancy be ruled out for any patient who has missed two consecutive periods before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule the possibility of pregnancy should be considered at the first missed period.

A small fraction of the hormone agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. The long-range effect on the nursing infant cannot be determined at this time.

Precautions—Pretreatment physical examination should include special reference to the breasts and pelvic organs, and a Papanicolaou smear.

Endocrine and possibly liver function tests may be affected by Ovulen. Therefore, it is recommended that such tests if abnormal be repeated after the drug has been withdrawn for two months.

Pre-existing uterine fibromyomas may increase in size under the influence of progestogen-estrogen preparations.

Because these agents may cause some degree of fluid retention, conditions which might be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation.

In breakthrough bleeding, and all irregular vaginal bleeding, consider nonfunctional causes. Adequate diagnostic measures are indicated in undiagnosed vaginal bleeding.

Carefully observe patients with a history of psychic depression and discontinue the drug if severe depression recurs.

Any possible influence of prolonged Ovulen therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study.

A decrease in glucose tolerance has occurred in a significant percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be observed carefully while receiving Ovulen.

Because of the effects of estrogens on epiphyseal closure Ovulen should be used judiciously in young patients in whom bone growth is not complete.

The age of the patient constitutes no absolute limiting factor, although Ovulen therapy may mask the onset of the climacteric.

The pathologist should be informed of Ovulen therapy when relevant specimens are submitted.

Adverse Reactions—A statistically significant association has been shown between use of oral contraceptives and the following serious adverse reactions: thrombophlebitis, pulmonary embolism.

Although available evidence is suggestive of an association, such a relationship has been neither confirmed nor refuted for the following serious adverse reactions: cerebrovascular accidents, neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis.

The following adverse reactions are known to occur in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea during and after treatment, edema, chloasma or melasma, breast changes (tenderness, enlargement, secretion), change in weight, changes in cervical erosion and cervical secretions, suppression of lactation when given immediately post partum, cholestatic jaundice, migraine, allergic rash, rise in blood pressure in susceptible individuals, mental depression.

Although the following adverse reactions have been reported in users of oral contraceptives, an association has been neither confirmed nor refuted: anovulation post treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme and nodosum, hemorrhagic eruption, itching. The following laboratory results may be altered by oral contraceptives: hepatic function: increased sulfobromophthalein and other tests; coagulation tests: increase in prothrombin, Factors VII, VIII, IX and X; thyroid function: increase in PBI and butanol extractable protein bound iodine, and decrease in T^3 uptake values; metyrapone test; pregnanediol determination.



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Various Local Efforts

Aid in the Conquest of Measles

Measles has received considerable attention in the public press within recent weeks. Both of the communicable diseases referred to as "measles," the very serious damage that each of them can do, and the means by which each of them can be prevented have thus gained widespread attention. It is fortunate that the public has become concerned about the matter, but it is the physicians who must see to it that enough people take the necessary action.

An immunizing agent against red measles (rubeola) has been available since 1965, and in the four years since then some significant progress has been made toward eliminating that disease and its dangerous complications. Protection against German measles (rubella), on the other hand, became available only very recently, but an epidemic of it is being predicted for 1971. It is German measles that frequently causes physical or mental abnormalities in unborn children whose mothers contract it during their early months of pregnancy.

The dramatic success achieved in eradicating red measles, over the past three or four years, can be illustrated by comparing pre-vaccine with post-vaccine statistics. In May of 1963 and of 1964, the Iowa State Department of Health received reports of 2,084 and 801 cases, respectively. For May of 1968 and of 1969, it received reports of just 83 and 27 cases, respectively!

THE POLICY OF BOTH THE STATE HEALTH DEPARTMENT AND THE IOWA MEDICAL SOCIETY

In the spring of 1967, the State Department of Health issued, and the IMS House of Delegates endorsed, the following STATEMENT OF POLICY CONCERNING CIRCUMSTANCES OF IMMUNIZATION ADMINISTRATION:

"The Iowa State Department of Health considers that the best place for a person to be immunized is the office of his private physician. Under these circumstances, the patient has the benefit of the services of a physician familiar with his medical history and peculiar needs. In the event of an undesirable side effect or consequence of immunization, the private physician is available to care for the patient. The facilities are most adequate, the vaccine used is the best available, and the patient is given the full attention and consideration of the physician.

"If a person requires immunization but cannot afford the services of a private physician, the best place for the administration of the immunization is a public health clinic operated by a governmental agency. Such a clinic would be staffed by a qualified physician, would use the best available antigens, would have adequate facilities and would provide follow-up by a physician in the event of a reaction or side effect.

"Under certain circumstances, when widespread administration of immunization is required, mass immunization clinics operated under the auspices of medical societies or governmental agencies may be required. These are less desirable than an established public health clinic. Vaccine efficiency may have to be sacrified to reduce undesirable reactions. Personal attention given to each patient may be necessarily lessened. Follow-up is difficult because of the number of patients involved.

"The immunization of the employees of a single company or the workers in a certain industry may

be justified in time of threat. This may be particularly true in public utility, communication, or transportation industries where the services of the majority of employees are required to maintain vital services to the public.

"Probably the least desirable method of mass immunization would be programs undertaken by altruistic groups which lack the required professional medical guidance or who seek to capitalize on the rendering of services to their members or others. Generally, such programs lack a solid need, are conducted without provision for after-care or follow-up and may be carried out under circumstances which are inadequate or even dangerous."

In brief, the foregoing statement expresses the State Health Department's and the Iowa Medical Society's preference for immunizations administered in the offices of family physicians. However it also sanctions, in a descending order of priority: (1) immunizations of indigent persons at permanently established public-health clinics; (2) mass immunization clinics set up under specified circumstances and conducted under the auspices of county medical societies or governmental agencies; and (3) immunizations administered in similar fashion to vitally needed personnel at the time of an epidemic. Last, it expresses general disapproval of mass clinics conducted by private, nonmedical organizations without medical guidance.

The IMS House of Delegates endorsed that STATEMENT OF POLICY on the recommendation of the IMS Committee on Maternal and Child Health. The Committee agreed with the State Department of Health that mass clinics occasionally are necessary, either because there are some susceptibles who must be reached and cannot be reached by other means, or because an epidemic threatens.

RED MEASLES (RUBEOLA)

Prophylaxis for each preventable disease poses a unique public-health problem. Diphtheria was rather easy to conquer because only about 70 per cent of the susceptibles had to be inoculated, and administering DPT and boosters to succeeding generations of infants protected Americans against importations of the disease from abroad. Because red measles is more readily contagious, ridding the United States of it will require a far higher percentage of immunizations—90 per cent or more—and the State Department of Health has found repeatedly that appeals in which parents are asked to bring their children to physicians' offices for inoculations never gather-in appreciably more than 85 per cent of families.* For that reason the Department urges one-time mass clinics, under medical society auspices, as "mop-up" procedures in counties where they have not been conducted already. It is estimated that such clinics will reach between one-third and two-thirds of the people who never, or almost never, come to doctors' offices for preventive-medicine services.

Between 75 and 80 Iowa counties have had mass clinics to supplement red-measles immunizations performed in physicians' offices. Doctors of medicine in the other counties certainly have worked hard at getting their fellow citizens protected. For example, in a county to which one of the newspaper stories referred, the medical society designated May, 1969, as "Measles Eradication Month," bought advertisements in each of the half-dozen newspapers urging parents to bring their youngsters to obtain the vaccine, and announced that the doctors would gladly administer it without charge in hardship cases. Yet State Health Department officials estimate that there still are 927 unimmunized susceptibles in that county. Throughout Iowa they think that 20,000 children remain vulnerable to the disease.

Untoward reactions to rubeola vaccine have been numerous enough to justify doctors' misgivings about the dangers posed by mass clinics, and they are also concerned about the possibility of inadvertent second-time inoculations at mass clinics. These and similar factors have been taken into account by the local medical societies as they choose the best plans for their individual situations.

GERMAN MEASLES (RUBELLA)

Public-health people believe that 1971 will be an epidemic year for German measles. A German-measles vaccine has been released for mass use, but of course there has been scant time in which to determine its effectiveness. No one knows how large a percentage of susceptibles must be immunized if an epidemic is to be prevented, but there is universal agreement among physicians that girls who have passed the menarche without having had the disease *must not* be inoculated, and thus it is likely that except for those who can be shown already immune, nearly 100 per cent of boys and girls under 12 years of age must receive the material. State public health officials believe this constitutes ample justification for conducting mass rubella clinics throughout the state during the current school year, on the basis that an emergency threatens.

Federal and state budget-cutting poses difficulties for the State Health Department in this connection. Consequently an attempt is being made to finance the program by raising $500,000 from private sources—principally to buy the requisite number of doses of the vaccine.

In our steady march toward better health, vexing problems confront us. The prevention of the two varieties of measles, and their serious sequelae, deserves attention from everyone concerned with the delivery of health care.

* The effectiveness of Iowa's permanently established public-health clinics, in this regard, has not been fully measured. A study conducted by the State Health Department has shown that private practitioners and the public clinic have achieved a satisfactory red-measles immunization percentage in Des Moines, but similar studies have not been made in other cities where there are public-health clinics.



Editorials

THE NIGHT BEFORE AN OPERATION*

You thought you had a private room
Alone in solitary gloom,
But strangers come and peer at you
As if you were a corpse on view.
They shave you almost everywhere
And contemplate you, lying there.
Your temperature's not in your face;
They take it in the strangest place.
They siphon off your poor insides
And drain away what's left of pride.
They sample of your kidney's brew,
And heap indignities on you.
They ask you questions not pertaining
To anything you're entertaining.
Then they leave you, wondering why
You didn't just stay home and die.

There is more truth than poetry in the preceding lines, and what their author has said applies not only to patients in the hospital but also to those in physicians' offices.

Patients are so very appreciative of medical personnel who make a conscientious effort to respect their dignity and guard their privacy. But too often they are embarrassed and resentful as a result of thoughtlessness and indifference. Kindliness and consideration are parts of the art of medicine—important parts about which physicians and nurses should be meticulous!

* By Elizabeth C. Bosch, of Medford, Massachusetts, published in MASSACHUSETTS PHYSICIAN, August, 1969.

HEART DISEASE IN INFANCY

Certain diseases ordinarily can be excluded in the differential diagnosis on the basis of age alone. Acute rheumatic fever is rare in children under the age of three years. Coronary heart disease has been unthinkable in a child of two. Emphasizing the fact that there are exceptions to all rules are some recent reports of a fatal case of acute rheumatic fever in a two-year-old, and the sudden, unexpected death of another two-year-old from thrombosis of both coronary arteries. They should put the clinician on his guard and give emphasis to the principle that there are no absolutes in medicine.

A group at Wesley Medical Center, Wichita, have reported the case of a two-year-old girl admitted to the emergency room with a history of "a cold, stomach trouble and nosebleeds."* The child had been well until two weeks before admission, when she developed a fever. Aspirin had been administered. She had improved promptly, and had continued getting better until the evening before admission, when she became very tired and was ready for bed at an unusually early hour. On the morning of her admission, the youngster was listless, ate poorly and was nauseated. Her parents noted rapid breathing, cough and fever, and brought her to the hospital on the evening of that day.

* Sleeper, C. A., Hayes, W. L. and Nelson, R. A.: Acute rheumatic fever; report of case in two-year-old child. J. KANSAS M. SOC., 70:277-279, (June) 1969.

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On admission, the child had a temperature of 102°F., a respiratory rate of 90 to 100 per minute, and a pulse rate of 180 per minute. The pharynx was mildly injected, the tonsils were slightly enlarged, and rhonchi were heard throughout both lungs. A short, systolic murmur could be heard at the apex, and eight hours later it had become a grade III regurgitant apical murmur. In addition, a grade II systolic murmur was heard in the pulmonic area. Electrocardiograms showed only a sinus tachycardia. X-ray revealed enlargement of the heart, particularly of the left atrium, and there were increased pulmonary markings.

Laboratory studies revealed a moderate anemia, a white blood cell count of 15,500/cu. mm., with 69 per cent segmented neutrophils, and a sedimentation rate of 42 mm./hr. Three blood cultures showed no growth. A nose and throat culture grew Staphylococcus aureus, coagulase positive. Viral cultures of three stool specimens were negative. On the fifth hospital day an antistreptolysin titer was positive in a 1:500 dilution.

A clinical diagnosis of viral or nonspecific myocarditis was made, though bacterial endocarditis and rheumatic fever were included in the differential diagnosis. Digitoxin was started on the night of admission. Ampicillin was begun the following day because pneumonia was considered a possibility on the basis of the x-rays. Because blood cultures had been negative, prednisone was started on the fifth day. Aspirin was administered throughout the child's hospital course.

On the sixth hospital day, cardiac decompensation became more severe, with gallop rhythm, diffuse pulmonary rales, and definite enlargement of spleen and liver. X-ray demonstrated an increase in heart size and showed evidence of severe pulmonary edema. Mercuhydrin and chlorothiazide were added to the therapeutic regime, but cardiac arrest occurred, and the patient expired on the sixth hospital day and after less than three weeks of illness.

At autopsy, 100 ml. of straw-colored fluid was present in the pericardial sac. The heart weighed 125 Gm.—twice the average weight for the heart of a two-year-old child. The myocardium was pale pink and flabby. There were no valvular vegetations, and no congenital anomalies. The lungs weighed three times normal for a child of two years. They were congested, they exuded serosanguinous fluid on compression, and they did not crepitate.

Microscopic studies revealed scattered Aschoff bodies throughout the myocardium. Sections through the mitral valve showed thickening of the leaflets, and areas of fibrinoid necrosis and inflammatory cell infiltration.

The authors point out that despite the fact that the patient was just two years of age, the evidence of carditis, the fever, the increased sedimentation rate, and the elevated antistreptolysin titer were compatible with a diagnosis of rheumatic fever.

The second case was reported by Burns and Manion, of the Prince Georges General Hospital, Cheverly, Maryland, and is perhaps rarer and more startling than the first one.** A two-year-old white boy was dead on arrival at the emergency room of the hospital.

Past history revealed that he was the product of a normal term delivery, and physical examinations during the neonatal period and on subsequent visits to the physician had been normal. The child had been ill on two occasions, with a high fever lasting for several days. During one of those episodes he had been evaluated in the hospital emergency room.

One week prior to his death, he again developed fever and cough, and was seen by his physician. The diagnosis of bronchitis and tonsilitis was made at that time, and Chloromycetin, 100 mg., was given intramuscularly, and Chloromycetin Palmitate was prescribed. The physician saw the boy again two days later, on the evening prior to his death. The doctor thought him no better at that time, but did not consider him ill enough for hospitalization. Another 100 mg. of Chloromycetin was given. The patient was last seen alive at about

** Burns, C. J. and Manion, W. C.: Sudden, unexpected death of a two-year-old child with thrombosis of both coronary arteries and with aneurysmal dilatation of vessels. MED. ANNALS DIST. COLUMBIA, 38:381-386, (July) 1969.

midnight, and no change seemed to have occurred in his condition. He was taken to the hospital the following morning, and was dead upon admission to the emergency room.

Autopsy revealed aneurysmal dilatation and thrombosis of both coronary arteries, and myocardial infarction. Although the cause of the cardiac disease in this child remained unknown, the authors thought it could be traced to a previous necrotizing vasculitis that damaged the walls of the coronary arteries, the extramural and intramural arteries, and produced focal myocardial lesions. The terminal illness was thought to have been due to an acute process superimposed upon the already seriously damaged cardiac vasculature. The authors said that coronary artery lesions, though rare, can occur in the youngest age group.

AZATHIOPRINE IN THE MANAGEMENT OF RHEUMATOID ARTHRITIS

A report from the London Hospital Medical College on the results of a study of the use of azathioprine in the management of patients with rheumatoid arthritis appears of sufficient merit to deserve critical attention from clinicians.* The authors point out that although the etiology of rheumatoid arthritis is still unknown, there is considerable evidence that immune mechanisms play at least a part in the pathogenesis of this formidable disease.

There have been several reports in the literature on the use of cytotoxic and antimetabolic drugs in the treatment of rheumatoid arthritis in an effort to suppress the immune response. However none of these have been controlled studies. The fact that rheumatoid arthritis is so frequently characterized by exacerbations and remissions demands controlled conditions if an accurate and unbiased evaluation is to be made of any treatment. The study by the London group tested the ability of azathioprine to reduce the requirements for corticosteroids in patients with severe rheumatoid arthritis under double-blind controlled conditions.

Azathioprine has been used extensively in organ transplantation to suppress the immune response and the rejection phenomenon. Inasmuch as the drug is a suppressant of bone marrow, its use in rheumatoid arthritis was thought justified only in severe cases and in a department where corticosteroid drugs were prescribed only for patients with resistant and progressive disease. Inasmuch as it is always the practice to titrate the dose of corticosteroid down to the minimum acceptable, it was decided that the most realistic measure of azathioprine effectiveness would be its ability to permit a reduction in the dosage of corticosteroid.

The London Hospital group reported the results of a double-blind trial to determine whether azathioprine, in a dose of 2.5 mg./Kg./day, could reduce the minimum corticosteroid requirements of outpatients with severe rheumatoid arthritis. Patients admitted to the trial were required to have a rheumatoid factor latex test greater than 1/40, and to have received a minimum of 5 mg. of prednisolone daily for six months and to have been on a stable dose for at least two months. The minimal hematologic requirements per cubic millimeter were 4,000 white blood cells, 2,500 neutrophils and 200,000 platelets. Premenopausal women were not admitted to the study group. A special effort was made to reduce the steroid dose to the minimum acceptable before each patient entered the trial. All analgesic drugs except one, paracetamol (acetaminophen), which was used as a supplementary drug throughout the trial, were discontinued one month beforehand.

In the trial, patients were given azathioprine or matching placebo tablets, allocated at random by means of a code in which patients were paired both for sex and for the initial dose of prednisolone. Patients attended the outpatient clinic at intervals of one month, and at each visit the dosage of both prednisolone and the analgesic paracetamol were modified as indicated by an overall clinical assessment made

* Mason, M., Currey, H. L. F., Barnes, C. G., Dunne, J. F., Hazleman, A., and Strickland, B. L.: Azathioprine in rheumatoid arthritis. BRITISH M. J., 1:420-422, (Feb. 15) 1969.

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under double-blind conditions. The trial was terminated as soon as a decisive difference between the steroid requirements of the paired patients had been established.

There were 49 patients admitted to the trial, 29 of whom were females and 20 males. The average age was 53 years. The initial prednisolone requirements varied from 5 to 20 mg./day, and the mean was 11 mg./day. Azathioprine was given to 25 patients, and placebos to 24.

The changes in prednisolone requirements within pairs of patients were plotted on a graph, and showed the change in steroid requirements in the azathioprine and placebo groups after 3, 6, 9 and 12 months. At 12 months the mean *reduction* in prednisolone dosage in the placebo group was 0.75 mg./day, and in the azathioprine group the *reduction* achieved was 4.3 mg./day. Since the mean prednisolone requirement for those taking azathioprine was 11.8 mg./day, a lowering of 4.3 mg./day represented a mean reduction at the end of the year of 36 per cent. It was significant that this decrease was accomplished without clinical deterioration.

Five patients taking azathioprine were withdrawn from the trial. One developed a white cell count below 3,500/cu. mm.; two patients showed a change to a macrocytic blood picture; and still another acquired a maculopapular rash. All of these recovered rapidly when the drug had been withdrawn. A fifth patient was withdrawn because of an exacerbation of rheumatoid arthritis two months after starting the azathioprine.

Nine patients were withdrawn from the placebo group for various reasons. Two of them developed exacerbations of rheumatoid arthritis, and two were found to have cancer.

After a year of treatment, the mean white count fell by about 2,500/cu. mm. in the patients taking azathioprine, and this involved both the lymphocyte and the neutrophil series. However in some patients there was no appreciable fall in white-cell count. No significant reduction was observed in the hemoglobins or in the platelet counts.

In their discussion of the study, the authors asserted that azathioprine reduced the prednisolone requirement signficantly without producing undue side effects. At the end of one year the trend was still favorable, and continued improvement is anticipated during the second year. It is acknowledged that steroid sparing is only an indirect measure of antirheumatoid activity, and it is quite possible that azathioprine may merely permit a small dose of prednisolone to have an enhanced effect. However there is some evidence against this concept—a significant reduction of raised diastolic blood pressure, and less bruising and glycosuria in those of the treated patients in whom reductions of prednisolone dosage were achieved.

In the dosage used, azathioprine did produce some suppression of bone marrow, but this was not necessary for a therapeutic effect. It was found that monthly blood counts provided adequate warning of serious suppression, and that the suppression is reversible on discontinuance of the drug.

The authors concluded: "Azathioprine therefore emerges as a drug of definite promise in the treatment of rheumatoid arthritis. Further studies will now be needed to compare the relative merits of this and other immunosuppressive agents, to study the long-term effects of these drugs on the disease and on the patient, and to test these drugs at an earlier stage of the disease."


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A CHICKENPOX PREVENTIVE FOR HIGH-RISK CHILDREN AND ADULTS

Although chickenpox usually is a benign infection, it is recognized that it may be a serious or even a fatal disease in children with cancer or leukemia, in children receiving steroids or antimetabolic drugs, and in newborn infants. It also can be serious in susceptible adults—particularly in pregnant women.

In an effort to protect these high-risk patients when they are known to have been exposed, passive immunization by means of human immune serum globulin was attempted, but without success. Even doses as high as 0.6 ml./lb. of body weight did not prevent the development of varicella. However, it was found that following these very large doses the severity of the illness was modified. Increasing the dose of immune serum globulin was impractical, for even on the basis of 0.6 ml./lb., 25 ml. had to be administered to an average four-year-old child.

The relationship between the viruses of varicella and of herpes zoster has been well documented, both epidemically and biologically. Thus it was a logical step to attempt passive immunization of susceptible children who had been exposed to varicella by administering zoster immune globulin (ZIG). Just such a study has recently been reported by a group of physicians at the New York University Center and Meadowbrook Hospital.*

Zoster immune globulin was prepared from the plasma of patients convalescing from herpes zoster who had varicella-zoster (V-Z) complement-fixing antibody titers of 1:256 or higher. The authors point out that pretesting of V-Z antibody titers may prove unnecessary if the titers are found to be in excess of that required to prevent infection. It is recommended that all patients who meet the requirements for blood donors seven to 21, or even 22 to 35 days after the onset of the zosteriform rash can be recruited as plasma donors.

The clinical trial of ZIG was carried out in six families from private pediatric practices. To meet the requirements for membership in the study group, a child had to belong to a household in which someone had experienced the onset of varicella within the past 72 hours, and the diagnosis had been confirmed by one of the authors. In addition, the family had to include two susceptible children between the ages of 2½ and 6 years. In each of the six chosen families the two susceptible children were passively immunized with either immune serum globulin (ISG) or zoster immune globulin (ZIG) from vials identifiable only by code number.

In each of the six families only one of the two children contracted varicella, and when the code was broken it was found that the disease had occurred only in children who had received immune serum globulin (ISG). The number of poxes varied from 15 to 356 per child. Three of the children with the disease had fever in excess of 101°F. during the course of the illness.

None of the children who had received ZIG contracted varicella after either exposure to the initial case in his home or after exposure to his sibling who had developed varicella following the administration of ISG in an attempt to provide passive immunity.

The dose of ZIG was 2 ml., which provided 0.04 to 0.06 ml./lb. of body weight. There was no correlation between the dosage of ISG and the severity of the ensuing illness.

None of the six children who were given ZIG had a rise in varicella-zoster serum antibodies after the exposure, and the negative finding suggested that the infection had been prevented rather than modified. Among the six children who developed chickenpox after receiving ISG, the antibody response appeared to depend upon the severity of the illness. The two children with the mildest cases failed to produce detectable levels of V-Z antibody after recovering from the disease, but the four children with more severe illnesses were found to have had rises in antibody titer.

In a subsequent issue of the NEW ENGLAND MEDICAL JOURNAL (July 31, 1969), Dr. Edward B. Shaw, of the University of California, makes some interesting comments concerning the efficacy of ZIG.† He points out that it is generally

* Brunell, P. A., Ross, A., Miller, L. H., and Kuo, B.: Prevention of varicella by zoster immune globulin. NEW ENGLAND J. MED., **280**:1191-1194, (May 29) 1969.

† Shaw, E. B.: Booster effect of herpes zoster. NEW ENGLAND J. MED., **281**:273, (July 31) 1969.

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accepted that gamma globulin obtained from recent convalescents from chickenpox will not influence the disease in a manner comparable to that in which gamma globulin prevents or modifies measles. That prompts him to speculate why varicella, with innumerable skin lesions, induces lower immune titers and fails to produce passive protection, whereas convalescent zoster serum produces high titers and is extremely effective in preventing chickenpox.

Dr. Shaw acknowledges that the reason for the difference must remain speculative, but he points out that herpes zoster usually occurs in adults who have previously had chickenpox. These second attacks, caused by an identical virus, may account for a booster effect upon the immune response, and provide much higher levels than those that follow the primary infection. He recalls three patients in whom classic chickenpox followed herpes zoster within two weeks—obviously showing that the initial zoster infection had not produced protective antibodies.

It is apparent that zoster immune globulin (ZIG) is a useful addition to the physician's armamentarium, permitting him to protect vulnerable children from serious chickenpox infections.

A HITHERTO UNRECOGNIZED JET AGE HAZARD

Under the caption "Slants and Angles," in a recent issue of the HAWAII MEDICAL JOURNAL, attention is called to a complication of air travel which deserves the attention of physicians.* According to this brief article, doctors in Hawaii have been impressed by the number of visitors who develop pulmonary emboli within a few days after their arrival.

The common story is the sudden onset of dyspnea, often accompanied by chest pain and hemoptysis. Physical examination usually reveals only rapid breathing and tachycardia. In most cases it is difficult to find evidence of peripheral venous thrombosis. Confirmation of a clinical suspicion of pulmonary embolism often requires radioisotope lung-scan, and venography may be necessary to confirm a silent and unsuspected thrombosis of the deep veins of the leg.

It is emphasized that the majority of patients who develop this clinical picture have traveled to the islands by air, and that air transportation appears to contribute to the development of venous thrombosis. Prolonged sitting and immobility lead to venous stasis in the lower extremities. Most travelers develop edema of the feet and ankles during a flight from the mainland. Other factors which perhaps may contribute to platelet stickiness are adrenalin-release and smoking. Whether pressurization of the cabin and sudden acceleration and deceleration have any etiologic significance is conjectural.

The patients who develop this syndrome are hospitalized in an intensive care unit. They are kept at bed rest, are monitored carefully, and are given anticoagulants. If embolization continues despite those measures, plication or ligation of the distal inferior vena cava may be necessary.

Travelers who journey long distances by air should take the precaution of moving about to avoid long periods of immobility with their legs dependent. They should prop up their legs, if at all possible.

The article alludes to "turista," a malady familiar to all travelers in Mexico. The Hawaiian variety of tourists' disease, though its manifestations are perhaps less obvious, is potentially much more serious, and it must be recognized promptly and treated vigorously.

* "Fly the Friendly Skies" (Slants and Angles). HAWAII M. J., 28:475, (July-Aug.) 1969.

INFORMATION FROM THE
IOWA HEART ASSOCIATION

Cardiovascular Roentgenology: Conventional Studies

M. VIAMONTE, M.D.
Miami Beach, Florida

CARDIAC FLUOROSCOPY and chest roentgenography complement history, physical examination and electrocardiography for the optimal evaluation of patients who have known or suspected cardiovascular disease.

Fluoroscopy is best accomplished using an image intensifier with optical or television monitoring. The major functions of cardiac fluoroscopy are the identification of abnormal calcifications; the detection of abnormal cardiac contractility; and the analysis of chamber enlargement. Cardiac fluoroscopy also aids in the recognition of pericardial effusion and in the analysis of cardiac contractility and great vessel pulsation. Diaphragmatic mobility and changes in the size of pulmonary nodules or masses during the performance of the Valsalva and the Müller maneuvers can be observed via fluoroscopy.

Especially in infants and children and in women of child-bearing age, one should conduct cardiac fluoroscopy using minimum exposure and employing maximum patient protection. It is our policy to analyze the chest roentgenograms prior to the fluoroscopic examination. A barium-swallow study should be done as part of the fluoroscopic examination. At our institution, routine chest roentgenography for cardiovascular evaluation includes the following five films: (1) a postero-anterior chest roentgenogram without barium; (2) a left anterior-oblique view at 45° without barium; (3) a right anterio-oblique view at 60° with barium; (4) a left lateral view with barium; and (5) a postero-anterior view, overpenetrated with barium. Because the heart is a three-dimensional structure, all these views are essential for a complete evaluation of chamber enlargement.

The overall size of the heart is evaluated by means of the cardiothoracic ratio, which is the maximum internal transverse diameter of the heart divided by the maximum internal transverse diameter of the chest. This ratio should be less than 50 per cent except in an extremely obese patient, or in one whose diaphragm is elevated and whose heart consequently has adopted a horizontal position. Cardiomegaly may be misdiagnosed in the presence of a prominent pericardial fat pad. The latter is easily recognized by the relative translucency observed around the apex of the left ventricle at the left cardiodiaphragmatic junction. A pericardial fat pad may also exist at the right cardiophrenic angle.

In the postero-anterior view, the right heart border has two arches. The cephalad one is the vascular arch, caused by the ascending aorta in adults, by the superior vena cava and right lobe of the thymus in infants and young children or by the superposition of the ascending aorta and the superior vena cava in certain individuals. The caudal arch of the right heart border is formed by the right atrium.

The upper portion of the left heart border in the frontal projection is formed by the aortic knob (the junction of the transverse and descending portions of the thoracic aorta). The middle arch is formed by the left border of the pulmonary trunk (upper two-thirds), the left auricular appendage (lower one-third), and the proximal portion of the left branch of the pulmonary artery. The caudal arch of the left heart border is formed by the left ventricle.

The left anterior oblique projection separates the left heart chambers from the right. The latter occupies the anterior half of the heart. The posterior heart border is symmetrically convex, and appears separated from the left bronchus by a radiolucent area representing aerated lung parenchyma. The anterior half of the heart is occupied by the right atrium superiorly, and by the right ventricle inferiorly. A line extending the anterior border of the trachea divides the heart into almost equal halves, and usually indicates the plane of the interatrial and interventricular septa. The left anterior oblique projection is utilized during selective angiocardiography for the study of left-to-right shunts at the atrial or ventricular levels. If contrast medium which has been injected into any of the left heart chambers is seen to be directed anteriorly, a left-to-right intracardiac shunt is indicated. This view is also excellent for evaluating valvular, subvalvular or supravalvular aortic pathology. The left anterior oblique projection unfolds the thoracic aorta. Left ventricular outflow tract obstructions are best analyzed in this projection. This is the projection of choice for selective injection of the right and left coronary arteries. The right coronary artery is directed anteriorly, and the left coronary artery posteriorly. The anterior descending division of the left coronary artery crosses the mass of the heart in the left anterior oblique projection.

The right anterior oblique projection is the view

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that separates the atria from the ventricles. The right anterior oblique projection should be taken at 60°, for this degree of rotation of the patient is that which separates the heart from the spine. The left and right atria are projected posteriorly, and the right and left ventricles are superimposed anteriorly. Selective ventriculography is essential to the evaluation of pathology of the atrioventricular valves. It is also very important for the evaluation of atrial enlargement.

The left lateral view of the heart separates the left atrium and left ventricle posteriorly, from the right ventricle and right atrium anteriorly. In the lateral projection of the heart taken after deep inspiration, one usually sees a vertical line crossing the angle formed by the posterior heart border (diaphragmatic portion of the left ventricle) and the left leaf of the diaphragm. This line corresponds to the posterior wall of the inferior vena cava. When the posterior heart border projects behind the caval line, left ventricular enlargement is usually indicated. The left lateral projection is important for the evaluation of heart size in the ventro-dorsal direction; for the evaluation of left atrial, left ventricular and right ventricular enlargement; for the diagnosis of obstructive airway disease (i.e., diffuse obstructive pulmonary emphysema); and for the recognition of thoracic-wall deformities such as sternal depression and the so-called straight-back syndrome. This is an excellent view for analyzing the size of the primary division of the pulmonary artery. The right pulmonary artery usually projects as an oval shadow just behind and below the tracheal bifurcation. The left pulmonary artery courses above and behind the left bronchus.

The overexposed frontal view of the heart is of value in the recognition of abnormal cardiac calcification, in the detection of an enlarged left atrium, in localizing the thoracic aorta, and in analyzing the esophagus-heart relationships. The postero-anterior view of the heart is used for evaluating heart size in the frontal plane and for determining cardiovascular configurations. The heart is said to have an "aortic or left-ventricle configuration" when the left ventricular arch and the aortic knob are prominent. This determines relative narrowing of the waist of the heart (relative concavity of the middle arch of the left heart border). The "mitral configuration" is said to be present when the shadow of the aortic knob is small, when the middle arch of the left heart border appears to be straight or convex, and when the left ventricular arch is inconspicuous. The left heart border follows a straight line directed from the midline to the left hemi-diaphragm. A double density caused by left atrial enlargement and inversion of the pulmonary vasculature (upper medial pulmonary vessels appearing larger than the lower medial pulmonary vessels) complete the picture of the "mitral cardiovascular syndrome." The "left-to-right shunt configuration" is said to be present when there is marked convexity of the middle arch of the left heart border and uniform pulmonary vascular plethora. The "Fallot configuration" is said to be present when there is a prominent rounding of the left ventricular border which appears raised above the diaphragm, and when the middle arch of the left heart border appears concave. This heart configuration is usually associated with pulmonary hypovascularity (secondary to right-to-left shunt). This group of findings is not pathognomonic of Fallot's tetralogy. It may be seen with other anomalies such as tricuspid atresia and persistent truncus arteriosus. The so-called "water bottle configuration" is said to be present when the right and left heart borders appear rather symmetric. There is enlargement of the transverse diameter of the heart, and the pulmonary vasculature appears to be normal or decreased. This configuration is the consequence of massive pericardial effusion or of cardiac dilatation (primary and secondary myocardiopathies).

Of all the heart chambers, the left atrium is the easiest to analyze. It is farthest posterior and hence touches the esophagus. In the frontal projection, when the left atrium is enlarged, one may see a slight convexity of the lower third of the middle arch of the left heart border due to dilatation of the left auricular appendage. A disc-like density appears in the center of the heart, causes a double density on the right heart border, and occasionally accounts for a third arch at the right heart border (the middle one). The interbronchial angle may appear to be widened (greater than 70°) when enlargement of the left atrium is directed superiorly. In extreme left atriomegaly, the esophagus may appear displaced to the right or to the left of the midline. Rarely, one may see atelectasis of the left lower lobe secondary to obstruction of the left lower-lobe bronchus caused by a markedly enlarged left atrium.

In the left anterior oblique projection the enlarged left atrium will obliterate the clear infrabronchial space, and one may see elevation of the left main bronchus. In the right anterior oblique projection the esophagus no longer parallels the thoracic spine. Variable degrees of esophageal displacement may be encountered. Elongated, marked esophageal displacement indicates the marked left atrial enlargement usually seen with severe mitral insufficiency. A localized, slight esophageal displacement indicates mild left atrial enlargement and predominant mitral stenosis.

Right atrial enlargement is best evaluated by means of the left anterior oblique projection. Prominence of the superior aspect of the anterior heart border usually reflects enlargement of the right auricular appendage. In the frontal projection, the right atrial border may appear displaced to the right and cephalad. There may be cephalad

(Continued on page 1039)



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displacement of point B (the junction of the right atrial border and the vascular arch). The right anterior oblique and the left lateral projections are not helpful for evaluating right atrial enlargement.

Enlargement of both ventricles will displace the apex of the heart caudally and toward the left. However enlargement of the right ventricle is suspected if there is convexity of the middle arch of the left heart border. Since the right ventricle is not a border-forming structure in the frontal projection, indirect evidence of right ventricular pathology is suspected whenever one observes convexity of the middle arch of the left heart border and abnormal pulmonary vascularity. Pulmonary valvular stenosis, left-to-right shunts and pulmonary arterial hypertension are the commonest causes of convexity of the middle arch of the left heart border. Rarely, the ascending aorta may occupy the middle arch of the left heart border (in corrected transposition of the great arteries, for example). In some instances abnormal convexity of the middle arch of the left heart border is related to herniation of the left auricular appendage through a partial pericardial defect, or to a non-vascular condition such as an enlarged thymus, tumor or adenopathy.

The left lateral projection of the heart provides best for profile analysis of the right ventricle. The closeness of the anterior heart border to the sternum is not a good sign of right ventricular enlargement. In patients with a narrowed anteroposterior chest diameter, the heart is close to or touching the sternum. The left and right anterior oblique projections are not helpful in assessing right ventricular enlargement.

The best view for evaluating left ventricular enlargement is the left anterior oblique projection. When the left ventricle is enlarged, it usually overlaps and may project beyond the thoracic spine. The angle formed between the left ventricle and the left hemidiaphragm may become obtuse. The right anterior oblique projection is not useful for evaluating left ventricular enlargement. In the frontal projection the shape of the left ventricular arch may reflect volume (broad, large arch) and pressure (rounding, short arch) hypertrophy.

Pressure hypertrophy of either ventricle may be radiographically silent. Physical findings and electrocardiography are usually more sensitive than conventional roentgenography for the establishment of right or left ventricular hypertrophy. However volume hypertrophy of either ventricle modifies heart size and configuration, and will exaggerate the convexity of the chambers.

Asymmetric enlargement of the ascending aorta may be seen with aortic valvular stenosis (poststenotic dilatation) and with syphilis. When the aorta becomes dilated and tortuous, the descending aorta may project beyond the middle arch of the left heart border. In such instances the right superior mediastinum may show a convex density usually caused by a tortuous, dilated and/or displaced innominate artery. Arteriosclerosis dilates and at the same time elongates the thoracic aorta. Since the thoracic aorta has a fixed position at the level of the aortic valve and at the aortic hiatus of the diaphragm, elongation will occur and the aorta will be displaced anteriorly, cephalad, to the right and dorsally, beyond the thoracic spine. Analysis of calcification at the level of the thoracic aorta is important. Dissecting hematoma, and lues (with ascending-aorta calcification) cause characteristic findings. Pericardial, coronary-artery and valvular calcification are best analyzed during fluoroscopy. The best view for separating mitral from aortic valvular calcification is the left anterior oblique. Aortic valvular calcification will project in the center of the heart and will have a cephalo-caudal (head-foot) motion. Mitral valvular calcification will project in the posterior third quadrant of the heart, and will have a reverse C-shaped motion.

Progress Is Claimed in the Treatment of Multiple Sclerosis

New hope for better control of multiple sclerosis was offered in a scientific exhibit at the annual meeting of the American Academy of General Practice, in Philadelphia late in September. Dr. George J. Boines, of Wilmington, Delaware, reported that 82 per cent of 500 patients showed good to excellent improvement following intrathecal injections of methylprednisolone acetate (Depo-Medrol, Upjohn), a steroid drug widely used in treating rheumatoid arthritis. Remission began within 48 hours following the first injection, he says. "Usually a plateau is attained after the first series of six injections, but a booster may be necessary three, six or twelve months later."

In addition to the drug, the course of treatment included physical therapy and exercise. "This regimen gives the patient physical and mental comfort, retards the progress of the disease, reduces disability and keeps patients active and hopeful" he explains.

Intrathecal injection is the only effective method of administering the drug, Dr. Boines says. He adds that remission of the disease is probably due to the medication's suppressing inflammation and hyperimmunologic responses of the central nervous system.

THE BREAKUP of a business partnership, the crack-up of a marriage, the shake-up of being fired or reduced to bankruptcy... after any significant loss or severe blow to se esteem, *both* anxiety and depression almost always follow.



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SIDE EFFECTS: Similar to those reported with either constituent alone.

Perphenazine: Should not be used indiscriminately. Use caution in patients with history of convulsive disorders or severe reactions to other phenothiazines. Likelihood of untoward actions greater with high doses. Closely supervise with any dosage. Side effects may be any of those reported with phenothiazine drugs: blood dyscrasia (pancytopenia, thrombocytopenic purpura, leukopenia, agranulocytosis, eosinophilia); liver damage (jaundice, biliary stasis); extrapyramidal symptoms (opisthotonos, oculogyric crisis, hyperreflexia, dystonia, akathisia, dyskinesia, parkinsonism) usually controlled by the concomitant use of effective antiparkinsonian drugs and/or by reduction in dosage, but sometimes persist after discontinuation of the phenothiazine; severe acute hypotension (of particular concern in patients with mitral insufficiency or pheochromocytoma); skin disorders (photosensitivity, itching, erythema, urticaria, eczema, u to exfoliative dermatitis); other allergic reactions (asthma laryngeal edema, angioneurotic edema, anaphylactoid reactions); peripheral edema; reversed epinephrine effect; endocrine disturbances (lactation, galactorrhea, disturbances of menstrual cycle); grand mal convulsions; cerebral edema; altered cerebrospinal fluid proteins; polyphagia; paradoxical excitement; photophobia; skin pigmentation; failure of ejaculation; EKG abnormalities (quinidine-like effect); reactivation of psychotic processes catatonic-like states; autonomic reactions such as drynes of the mouth, headache, nausea, vomiting, constipation, obstipation, urinary frequency, blurred vision, nasal congestion, and a change in the pulse rate; hypnotic effects; pigmentary retinopathy; corneal and lenticular pigmentation; occasional lassitude; muscle weakness; mild insomnia; significant unexplained rise in body temperature may suggest intolerance to perphenazine, in which case discontinue. Antiemetic effect may obscure signs of toxicity due to overdosage of other drugs or make diagnosis of other disorders such as brain tumors or intestinal obstruction difficult. May potentiate central nervous system depressants (opiates, analgesics, antihistamines, barbiturates, alcohol), atropine, heat, and phosphorous insecticides.

Amitriptyline: Careful observation of all patients recommended. Side effects include drowsiness (may occur within the first few days of therapy); dizziness; nausea; excitement; hypotension; fainting; fine tremor; jitteriness; weakness; headache; heartburn; anorexia; increased perspiration; incoordination; allergic-type reactions manifested by skin rash, swelling of face and tongue, itching; numbness and tingling of limbs, including peripheral neuropathy; activation of latent schizophrenia (however, the perphenazine content may prevent this reaction in some cases); epileptiform seizures in chronic schizophrenics; temporary confusion, disturbed concentration, or transient visual hallucinations on high doses; evidence of anticholinergic activity, such as tachycardia, dryness of mouth, blurring of vision, urinary retention, constipation, paralytic ileus; agranulocytosis; jaundice. The antidepressant activity may be evident within 3 or 4 days or may take as long as 30 days to develop adequately, and lack of response sometimes occurs. Response to medication will vary according to severity as well as type of depression present. Elderly patients and adolescents can often be managed on lower dosage levels.

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Iowa Association of Medical Assistants

What's His Name?

"You don't remember me, do you?" The person who asks you this question doesn't expect to be proved wrong, but would very much like to be. And what a sinking feeling one has when the visitor's face seems familiar but his name might be just anything!

A retentive memory for names and faces is most essential in the life of a medical assistant. Developing an ability to remember names promptly and accurately will cause people whom you meet, both in business and social life, to like and respect you. Everyone is fundamentally proud of his name, for his name represents him.

Let's put ourselves in the other fellow's shoes for a moment. If one of us were addressed by name just the second time that she entered an office, she would be sure she had made an impression the first time. On the other hand, if one of us found she had to introduce herself all over again, she would be disappointed.

Now let's get back behind the desk. How do we go about remembering people and their names? First of all, we must *want* to remember; then we must be confident that we *will* remember; and finally, we must *intend* to remember.

When a patient comes to your office for the first time, make sure that you hear his name distinctly. If you are in any doubt, ask him to spell it for you. You should write the name, if for no other reason than that writing it will help you fix it in your mind, and the visitor will want to have it spelled correctly. Take special care to observe the person's face, and imprint it on your mind while you repeat his name to yourself. Draw him into conversation or watch for a mannerism or characteristic that you can associate with his name. One reason we forget names and faces is that we haven't developed proper habits of conversation. We *look at* each unfamiliar face, but in many instances we don't really *see* it. Use your ears as well as your eyes. The more senses you use, the easier it is for you to remember. Again afterward, write the new name down, trying to visualize the face that goes with it.

William James, the famous psychologist, said that the secret of a good memory is the knack of forming strong and vivid associations. Memory is like a bank; the more we put into it, relating one thing to another, the more we can take out. We have a better memory for things having meanings that we grasp than for those we do not understand. Also we remember things we are interested in, and forget those that have had no attraction for us. The more concentration we devote to something, the longer we can remember it. Often we don't really *forget* the name of a patient; actually we never learned it, for we failed to concentrate upon it!

There is no mystery about memory. Memory is like muscle; it is strengthened by exercise and weakened by idleness. Most of us operate at only a fraction of our total memory capacity. Some psychologists believe that our efficiency in remembering is as low as 10 per cent. What unbelievable wonders could we work if we developed more of the latent brain power we have within us!

You may have noticed that all successful people have powerful memories, and that leaders of men have especially great memories for names. It is said that James Farley, the well-known politician, is able to call 50,000 people by their first names.

The key words in the art of remembering names are *intend, concentrate, associate* and *visualize.* Practice remembering names at the meetings of your Medical Assistants' Association. It is doubly important for you to remember the names of your new members and of the guests whom your fellow members have brought with them. Give yourself a talking-to before you get to the meeting-place. *Intend* to remember the name of every unfamiliar girl that you meet. Next, *concentrate* on hearing her name and *concentrate* on fixing her face in your memory. Try to *visualize* her face, and then *associate* her name with something such as the doctor for whom she works or the member who brought her as a guest. If at some time you have spoken to her on the phone and already have some mental note about her, then her name will slip readily into your "memory file."

Aeschylus, the ancient Greek playwright, called memory the mother of wisdom. When you cultivate a retentive memory, your other mental abilities are developed. It is even possible for you to raise your intelligence quotient by improving your memory skills.

Preferably, try to remember something good. We all tend to recall a disagreeable incident, probably because it has made such a deep impression. We don't forget the patient who has cancelled an ap-

(Continued on page 1045)

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Iowa Association of Medical Assistants

(Continued from page 1043)

pointment three or four times, and then has come in at the wrong time and has expected to be cared for immediately. Incidentally, we must make a conscious effort to be kind, though firm, with this type of patient. Sometimes, I'm glad to say, kindness pays off with such people. A patient who has complained repeatedly about the inconvenience of his appointments, who has been late or even has been a "no show" one or more times, and who has found fault with everything and everyone, including the doctor and you, frequently is the one who, come the day of discharge from care, says, "Thank you. This has been one of the pleasantest offices I've ever come to." I'll be sure not to forget *his* name!

But to get back to our memories. We may never break Mr. Farley's record, but it would be a wonderful feeling when someone has asked, "You don't remember me, do you?" to be able to reply heartily and truthfully, "Yes, I do!" and to pronounce that person's name, right down to the middle initial.

—Jeanne D. Green

AMA Sets Course of Study for Girls Aspiring to Become Medical Assistants

During the AMA Convention in New York City last July, the House of Delegates outlined a training program for girls who wish to become medical assistants. It is to include elementary courses in the biologic sciences, an introduction to clinical procedures, an introduction to medical ethics and the law as it pertains to medical practice, and an intensive indoctrination in how to aid the physician in maintaining an efficient and pleasant office for the reception and treatment of his patients.

Among the subjects in the curriculum will be anatomy and physiology, administrative and clinical procedures for medical assistants, and the purposes and techniques of laboratory procedures usually performed in a physician's office.

The House of Delegates also recommended that each student be provided some practical experience in a physician's office or in a hospital selected by the institution in which the girl is enrolled.

In adopting this program it was the consensus of the House that students aspiring to become medical assistants should be led to understand the purposes and the methods used in clinical and laboratory work performed by nurses and other personnel in doctors' offices, but that they should not be trained to do them.



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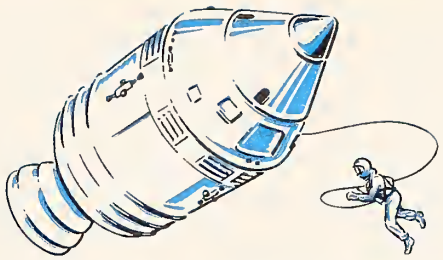


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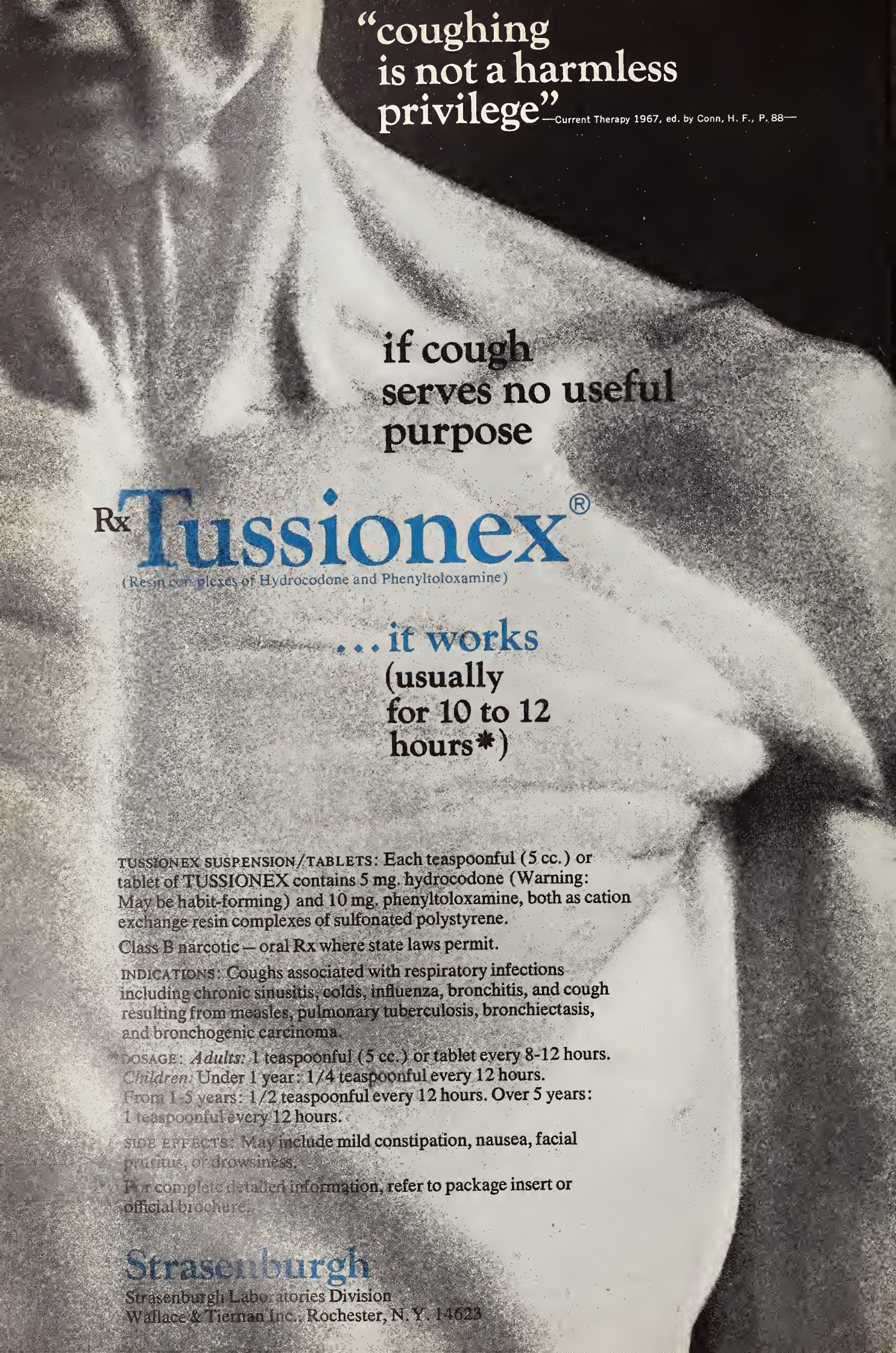
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TUSSIONEX SUSPENSION/TABLETS: Each teaspoonful (5 cc.) or tablet of TUSSIONEX contains 5 mg. hydrocodone (Warning: May be habit-forming) and 10 mg. phenyltoloxamine, both as cation exchange resin complexes of sulfonated polystyrene.
Class B narcotic – oral Rx where state laws permit.
INDICATIONS: Coughs associated with respiratory infections including chronic sinusitis, colds, influenza, bronchitis, and cough resulting from measles, pulmonary tuberculosis, bronchiectasis, and bronchogenic carcinoma.
DOSAGE: *Adults:* 1 teaspoonful (5 cc.) or tablet every 8-12 hours. *Children:* Under 1 year: 1/4 teaspoonful every 12 hours. From 1-5 years: 1/2 teaspoonful every 12 hours. Over 5 years: 1 teaspoonful every 12 hours.
SIDE EFFECTS: May include mild constipation, nausea, facial pruritus, or drowsiness.
For complete detailed information, refer to package insert or official brochure.
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Woman's Auxiliary News

From the President's Desk

The Fall Conference of the Woman's Auxiliary to the American Medical Association which was held in Chicago on October 5-8, was a most stimulating, inspiring and informative experience. It was a workshop to prepare your president and president-elect for the activities of the current and coming year. As a famous comedian would say, the gathering was a "good group." It made one proud to be associated with the calibre of women who were present at that gathering.

The opening session was chaired by Mrs. John M. Chenault, the National Auxiliary president, and Gerald D. Dorman, M.D., president of the American Medical Association, delivered the keynote address. Dr. Dorman particularly congratulated the Auxiliary on its anti-violence campaign, and encouraged us to become involved with youth. He left us with a restatement of the American Medical Association and the Auxiliary's main objective, namely, "best health care for all the people."

Following Dr. Dorman's address, Mrs. R. C. L. Robertson, president-elect, assumed the chair as presiding officer. Headlining the morning program was Howard A. Schneider, Ph.D., head of the Experimental Medical Ecology Department of AMA's Institute for Biomedical Research. Dr. Schneider referred to the Auxiliary as "the Institute's staunchest and greatest support."

Next, Mr. A. Brooks Parker, Jr., director of Tennessee Health Careers, offered a dynamic presentation especially designed to help us reach the "now generation." The morning program concluded with discussions by two leaders of the Woman's Auxiliary to the Student American Medical Association, Mrs. Carl Welch, president, and Mrs. G. Edward Kappler, president-elect.

Ernest B. Howard, M.D., AMA executive vice president, was the guest speaker at the Monday luncheon. Dr. Howard commented on the quantity and quality of health care today.

The afternoon session centered around "The Auxiliary at Work in the Community." Eight Auxiliary women participated in a skit titled "How to Present a Package Program," which offered some practical uses for the package program on alcoholism.

The Monday evening dinner was highlighted by a speech by the Honorable Robert Packwood, U. S. Senator from Oregon. His presentation was entitled "You, Too, Can Be a Leader."

Tuesday's session began with the "mini" workshops. The state presidents and presidents-elect were divided into five groups, according to the memberships of their state Auxiliaries, and five extension committee chairmen rotated from room to room and presented ideas for implementing programs on the state level.

Mr. Donald L. Taylor, executive vice-president of the Iowa Medical Society, was the afternoon speaker. His subject was "The Auxiliary Works With the Medical Society," and it was my pleasure to introduce him. As was to be expected, his presentation was very well received. His speech was a very thoughtful analysis of many of the current Medicare and Medicaid problems. He pointed out that as the Medical profession has long predicted, current fiscal difficulties in those programs are being attributed to physicians' actions, rather than to imperfections in the systems themselves. Mr. Taylor emphasized that the Medical profession has lived up to its commitments, and is adding new checks and balances such as peer review so that physicians can remain above reproach.

The Wednesday meeting began with a tour of AMA headquarters. The remainder of the morning was devoted to film presentations in the AMA's 9th floor auditorium. Mrs. Paul E. Rauschenbach, chairman of the committee on children and youth, introduced a new film produced by the National Foundation called "More Than Love." Rev. Dr. Paul B. McCleave, director of the AMA's Department of Medicine and Religion, presented "A Storm, A Strife," the AMA's new medicine-and-religion film.

The meeting adjourned following a showing of the Auxiliary's participation in closed-circuit TV during the AMA Annual Convention in July, 1969.

—Jeanne Coughlan (Mrs. D. W.)

AMA-ERF CHRISTMAS CARDS

If you have not received your Christmas Card Kit from *Drawing Board* and *Hampton House*, contact Mrs. R. M. Perkins, 125 East Rusholme, Davenport 52803.

Around the Hawkeye State

Boone County

The Boone County Medical Auxiliary's September meeting was held at the Boone County Hospital. Following luncheon, the business meeting was conducted by the president, Mrs. R. L. Wicks.

Plans were made for the annual Health Careers Day which was held October 23 at the Imperial Inn. Mrs. Donald Cross, chairman for the event, appointed committees to carry out the plans for it.

To complete the day's program Mr. Charles Linden, the hospital administrator, presented an interesting talk on the new hospital and accompanied the group on a tour of the new hospital facilities.

Dallas-Guthrie

The Dallas-Guthrie Medical Society and its Auxiliary held their September meetings at the Country Club in Perry. Following dinner the staff of the West Central Mental Health Clinic, at Adel, presented a program.

Afterward, the two groups held separate business meetings. Mrs. K. M. Chapler, president, presided at the Auxiliary's session.

Polk County

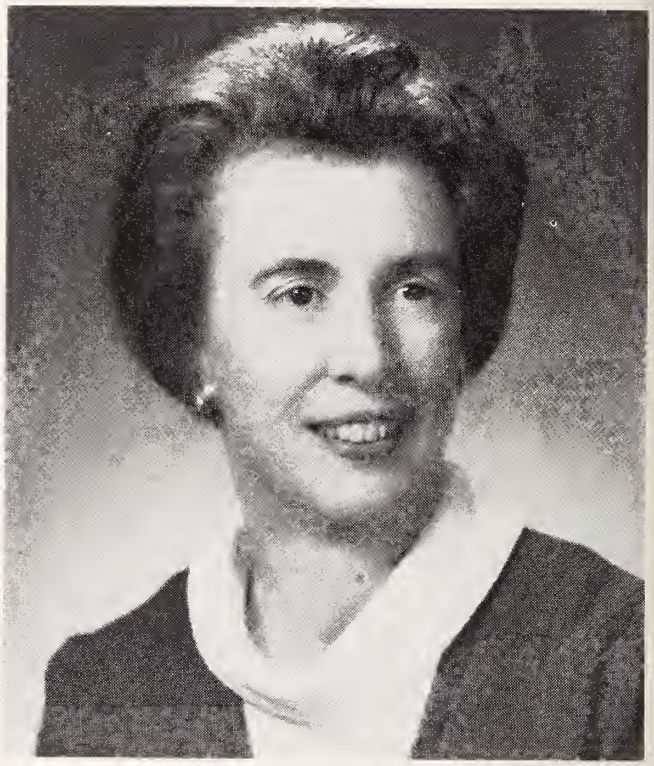
The annual fall combined meeting of the Polk County Medical Society and its Woman's Auxiliary was held at the Wakonda Club on Wednesday evening, September 17. Following a social hour, a delicious prime-rib dinner was served to approximately 250. In the absence of the County Medical Society president, Dr. Wallace Rindskopf, the meeting was conducted by President-elect Dr. Ralph E. Hines. The County Auxiliary president, Mrs. Floyd M. Burgeson, extended a warm welcome. New officers, distinguished guests, new members, residents and interns were introduced and welcomed to the Society. Dance music and entertainment by the West Des Moines Kiwanis Dixie Land Band climaxed a most enjoyable and relaxing social evening.

Mr. Ed Kingery, executive secretary of the Polk County Medical Society, Mrs. Richard E. Preston, the Auxiliary's Social Chairman, Mrs. Lawrence O. Ely, its Program Chairman, Mrs. Robert M. Knox, its Mailing Chairman, and the various committee members made this lovely evening possible.

The Auxiliary met for luncheon at the Des Moines Community Playhouse on October 10. Mr. Ted Kehoe, the director of the Playhouse, spoke on "The Theater Today" and conducted a tour of the building. Mrs. Richard E. Preston and Mrs. L. O. Ely were in charge of the arrangements.

The annual Mercy Medical Day was October 22. Then, once more, physicians and their wives met for a dinner meeting at Hotel Fort Des Moines. The program, "Utmost in Variety" featured comedian-musicians Eddy and Ruth Jester and accordionist Lew Prohut.

National President



Mrs. John M. Chenault

Mrs. John M. Chenault of Decatur, Alabama, was installed as 1969-70 President of the Woman's Auxiliary to the American Medical Association at the 46th Annual Convention on July 16, 1969. Mrs. Chenault has been an Auxiliary member since 1946 and was Alabama state president 1954-1955. She has served the Auxiliary on all levels, county, state and national.

Mrs. Chenault is a graduate of the University of Alabama, and met her husband while he was a student at the University. They were married in 1941 and have five children.

Mrs. Chenault has been a dedicated worker in her community, too. Her interests include Girl Scouts, D.A.R., Garden Club, Mothers' Club, League of Women Voters, Women's Chamber of Commerce, PTA and County Mental Health Association. She is also active in Red Cross work, in a music club and in her church.

Many Iowa members will remember her as the national representative who attended the Iowa Annual Meeting in 1956. At that time Mrs. Chenault was National Program Chairman.

An Action Program to End TV and Movie Violence

Mrs. C. C. Long, deceased, the immediate past-president of the Woman's Auxiliary to the American Medical Association, selected children and youth for National Auxiliary emphasis. As your state president, I urge you to promote programs regarding children and youth in your county Auxiliaries, and in each of your members' communities.

It is not necessary to tell you that the violence of our times is a threat to the well-being of every person in our nation—and especially of our young people. Violence kills and maims as surely as does disease. It can irreparably blight our lives and darken the future of every young person unless we act to stop it.

As MC CALL'S magazine recently pointed out, "Women can stop the outpouring of violence and sordidness on our television screens and in the motion-picture theaters." We can do something about it—now.

Mrs. Long's recommendations for action follow:

"Much is being written about the situation—but not enough action is being directed at the sources of decision on programming and content. I propose that every Auxiliary engage in an action program directed where it can do the most good. Here is what Auxiliaries can do:

"1. Appoint action committees to call personally on: managers of all TV stations in your area; owners or managers of all local movie chains and individual theaters; and heads of local TV advertisers.

"2. Form joint-action groups with PTA's, Leagues of Women Voters, church women's groups, teachers.

"3. Set up a viewing and screening schedule to monitor all shows and to keep records of the degree, frequency, time, etc., of violence on each station and in each theater. (Be careful *not* to give any appearance of censorship or of boycotting any given station or theater, for this is not the tack we should take.)

"4. Feed this information steadily to the local TV critics, editorial writers and movie reviewers as background for their commentaries.

"5. Launch letter-writing campaigns to the presidents of national advertisers, TV networks, advertising agencies and movie producers. Emphasize the Auxiliary's concern for sound health education; avoid abusive language or threats of boycotts.

"Here are some men you can write to: Julian Goodman, president, National Broadcasting Company, 30 Rockefeller Plaza, New York City; Frank Stanton, president, Columbia Broadcasting System, 51 West 52nd Street, New York City; Leonard Goldenson, president, American Broadcasting Company, 1330 Avenue of the Americas, New York City; Jack Valenti, Motion Picture Association of America, 522 Fifth Avenue, New York City.

"6. Support community forums on violence, and urge other women's groups to participate.

"I urge you to give top piority to this campaign among your current activities. Keep state Auxiliary headquarters informed of the response to your action program (forwarding copies of letters sent and received) so that we may gauge the overall effectiveness of our efforts."

—JEANNE COUGHLAN (MRS. D. W.)

AMA/ERF and the Scanlon Medical Foundation/Iowa Medical Society

It will be of interest to all of you that the Iowa Auxiliary's total AMA/ERF contribution reported at the National Auxiliary Convention in New York City, during July, was a nice $6,285.30, to which 17 of the 33 Iowa counties with Auxiliaries and 20 of the Iowa counties that do not have Auxiliaries were contributors. As you know, last year Iowa won an award for increasing its giving by the largest percentage of any state Auxiliary in the North Central Region. In spite of our increase, there was no award at the National Convention this year for Iowa, but we are striving to return to the winners' circle next year.

Contributions to AMA/ERF can be made without any "ear-marking," in which case the money goes to help support the activities of the AMA's Institute for Biomedical Research, which is located in Chicago and is financed entirely by AMA/ERF. Many contributions are designated for the medical school of the donor's choice, of course, and are sent to that school for its use.

Perhaps the Scanlon Medical Foundation/Iowa Medical Society should be explained here, so that you will be able to distinguish it from AMA/ERF. The Scanlon Medical Foundation/Iowa Medical Society is supported entirely by gifts from Iowans, and it has as its principal activity the lending of money to medical students. Under its current policy, it can lend money to sophomores, juniors, or

Have you moved in the past few months? PLEASE send any changes of address to 1001 Grand Avenue, West Des Moines, Iowa 50265. Communication is a necessity: Do help keep our mailing list up to date. You are our best source of accurate information.

seniors in medical schools in amounts up to $2,000 per year, or a total of $6,000 over the student's last three years of medical school training. The borrower must agree to engage in general practice in Iowa for three years following his internship and the completion of his service obligation. At present there are 14 students under the program. They must be Iowans, but they need not be students at the U. of I. College of Medicine. The loans bear 5 per cent simple interest beginning at the time when the borrower begins private practice. If he fails to enter general practice as agreed, his loan falls due at once. This work of the Scanlon Medical Foundation/Iowa Medical Society has gained increasing importance of late, for there has been some "drying up" of federally guaranteed loans for medical students.

Donations either to AMA/ERF or to the Scanlon Medical Foundation/Iowa Medical Society are, of course, tax-deductible.

—JANE PERKINS (MRS. ROLLIN M.)
AMA/ERF Chairman

AMA-ERF Fund Raising Projects

Note Paper

Playing Cards

Mrs. R. M. Perkins
125 East Rusholme Street
Davenport 52803

or

Woman's Auxiliary Office
1001 Grand Avenue
West Des Moines 50265

International Health Activities

"Aloha from the middle of the Pacific to all of you"—so writes Mrs. Howard Liljestrand, our National I.H A. Chairman.

International health is growing in scope and accomplishment. Through World Medical Relief, medicines and supplies have done a tremendous job in Civil Action programs throughout the world. World Medical Relief has been active in some of our own riot-torn cities, carrying food, medicine, social workers and a visiting nurse to those whose very survival depended on them.

As the "need" lists come in from Medical Supplies for Missions, World Medical Relief, Project Concern and Direct Relief Foundation, we find a constant need for pharmaceuticals (sample drugs), surgical instruments, copies of the PHYSICIAN'S DESK REFERENCE, surgical equipment of all kinds, hospital gowns, bed sheets, crib sheets, and uniforms for doctors and nurses. And the list keeps growing.

You may have heard that the collection of physicians' pharmaceutical samples for distribution overseas is being phased out as a national project. *However there is no objection to any county or state Auxiliary's continuing the program with the approval of its medical society.* All collection, packing and shipping regulations must be complied with. *Instructions* for wrapping and mailing were sent out last year, and also *guidelines* for collection of physicians' drug samples. If you do not have them, please write to me and I shall be happy to send a copy to you.

Medico continues to share the benefits of America's modern medicine with needy nations throughout the world. Through Medico, qualified physicians, nurses, technicians and physical therapists serve overseas on modest salaries plus living allowances. Augmenting the work of these Medico teams are groups of volunteer specialists, nursing instructors and hospital administrators. All of them pay their own air fare and living expenses.

The enduring strength of Medico lies in the capacity of men and women to give of themselves in the service of others.

International health activities of Auxiliaries are of continuing importance. Besides being needed, such activities are ways in which physicians' wives can show people at home and abroad that they really care.

As long as there is need, *we need you!*

—MRS. A. C. (SUE) RICHMOND
Iowa International Health Activities Chairman

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

President—Mrs. D. W. Coughlan, 1435 Park Avenue, Des Moines 50315
President-Elect—Mrs. L. H. Prewitt, 33 Birchwood Hills, Ottumwa 52501
Recording Secretary—Mrs. O. A. Elliott, 4010 Welker Avenue, Des Moines 50312
Treasurer—Mrs. J. F. Veverka, Box 324, Prairie City 50228
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STATE DEPARTMENT OF HEALTH

James F. Speers, M.D.

JAMES F. SPEERS, M.D., M.P.H., COMMISSIONER

Changing Public-Health Nursing Programs in Iowa

THELMA LUTHER, R.N.
Director, Division of Nursing

Probably at no time in the history of public-health nursing has there been such a rapid expansion of services as in the past three years. It has come about as a result of new governmental programs with funds to promote health facilities, and a general awakening of the public to the need for community-health programs.

Public-health nursing agencies in Iowa usually fall into three major categories: the tax supported or official agencies; the voluntary-fund agencies usually called visiting-nurse associations; and a combination of the two, which are financed jointly by tax and voluntary funds.

Official-agency public-health nursing services may be under the auspices of county boards of health, city health departments or the State Department of Health. Combination agencies are, for example, combination visiting-nurse associations and county public-health nursing services, and they carry various titles.

Beginning in the early 1880's in this country, a growing sense of community responsibility on the part of many citizens led to the establishment of visiting-nurse associations under private auspices. These agencies were founded for the sole purpose of sending graduate nurses into homes—usually the homes of the poor—to care for new mothers and babies, and to care for the sick. In Iowa, also, the first public-health nursing services were provided by visiting-nurse associations. Later, county public-health nursing services developed, beginning mainly under the auspices of the American Red Cross.

It is unfortunate that many people still believe public-health nurses serve only the poor. This misunderstanding is probably attributable to the early history of these services. It would be helpful if the word *county* could be deleted from the designation of public-health nurses employed by county boards of health, for that word connotes services for indigents, in the minds of many people. Public-health nursing is offered to people in all financial brackets, since health problems certainly are not confined to the poor.

In Iowa there are 18 visiting-nurse associations in the large cities. Fifty-nine county boards of health employ one or more public-health nurses.

Visiting-nurse associations have long charged a sliding scale of fees, reflecting patients' ability to pay. The fees are for nursing procedures for the care of the ill. Educational or preventive services are provided *gratis*. The law long prevented boards of supervisors from charging for the services of the public-health nurses in their employ, in spite of the fact that many people would have preferred to pay. The 1967 Legislature passed a bill which created county boards of health which at present are the employers of county public-health nurses. The new law also allows county public-health nursing services to charge patients. Those charges, also, will be on a sliding scale for persons able to pay, and will be fees for nursing procedures.

With the coming of Medicare, the 18 visiting-nurse associations, long experienced in providing bedside services, made necessary preparations for becoming certified as providers of home health services. By July, 1966, most of them had been certified.

County public-health nursing agencies could not be certified until they were allowed to collect fees. In addition, most of them employed only one nurse to serve a population of at least 20,000. To give any appreciable amount of bedside service in addition to preventive and educational services to such numbers of people was difficult. Twenty-one counties presently have two or more nurses, and some are employing nurses by the hour. This makes the organization of home-care services feasible in rural areas. Presently 15 county boards of health have been certified as providers of home health services under the Health Insurance Benefits Program, and many more are preparing for certification.

Public-health nurses work closely with many community health and welfare groups. Problems of individuals and families are frequently complex, requiring assistance from other agencies. The public-health nurse must be aware of community facilities available to patients, must communicate the needs to the proper agencies, and must correlate her nursing services with the work of other agencies in order best to serve patient and family needs.

In large-city areas, social service exchanges are available, or social workers may be employed on public-health nursing staffs. These possibilities facilitate a coordination of services. In rural Iowa, where health and social agencies are not so numerous or complex, there may be gaps in service, or improper utilization of available services. It is essential for public-health nurses and social workers to understand one another's roles. They must communicate information as efficiently as possible.

Public-health nurse coordinators are a recent innovation in Iowa, and they have been effective in improving patient care. The coordinators are public-health nurses employed either by hospitals or by public-health nursing agencies. They function as liaison nurses, working with hospitals and nursing homes, physicians, social workers and others in an effort to provide continuity of nursing care to the patient before, during and after his hospitalization.

Within the past few years, two new and important groups of community workers have become active in Iowa. They are homemakers and home-health aides. Presently there are 41 agencies providing their services by means of a variety of funding patterns. Differentiation between homemakers and home health aides has been difficult for many persons. The homemaker provides services ordinarily rendered by the mother, and helps keep the family intact during the mother's disability and/or absence. The home-health aide provides personal health-care services which have been ordered by a physician. Her work may be supervised by a registered nurse, or supervision may be provided by other professional health workers such as physical therapists. Physicians, public health nurses, social workers and others contribute to the training of these workers. In most programs the same individual is trained and works both as a homemaker and as a home health aide, and changes roles to meet the needs of each particular case.

Increased community planning for health and welfare programs is a very important trend in Iowa. More comprehensive planning for health services was initiated by Public Law 89-749, the Partnership in Health Law. It charges state and local groups with responsibility for planning for community, state and regional health needs. Persons working in the health fields, as well as consumers of their services, have an important contribution to make in planning health facilities and services, and they also have a responsibility to become involved in planning.

The philosophies of public-health nurses and other health and social-service workers are similar. All wish to see the development of programs which will help individuals to lead productive lives.

Poliomyelitis Immunization Before Foreign Travel

The following Advisory Memorandum No. 12 from the National Communicable Disease Center of the U. S. Public Health Service is extracted for the information of Iowa physicians:

"The Foreign Quarantine Program . . . points out, . . . that the incidence of poliomyelitis in some European countries exceeds the incidence of poliomyelitis in the United States. For this reason we recommend that all Americans traveling to Europe be vaccinated with poliovirus vaccine. Children who have completed the American Academy of Pediatrics or the Public Health Service Advisory Committee on Immunization Practices schedule with *oral* poliovirus vaccine need only a single booster of trivalent oral vaccine. This booster need not be repeated for subsequent trips abroad. Adults who have received fewer than two doses of trivalent *oral* vaccine should have two doses six to eight weeks apart before departure. Adults who have had two or three doses of trivalent oral vaccine should have only a single dose, which need not be repeated for subsequent trips."

To the above, the Preventive Medical Service of the Iowa State Department of Health adds its own recommendation that similar precautions against polio are advisable before travel to African and Asian countries.

Continuous effort must be exercised in Iowa to make sure that all children are immunized against polio at the earliest possible age. Only by unremitting efforts to maintain the highest possible immune rate can we hope to continue to enjoy virtual freedom from this disease. The two cases of polio which have been recognized in the past three years were both in *unimmunized* young people. As we see it, the problem isn't the administration of boosters to the already immunized, but rather the administration of primary immunization to susceptibles. We must try harder to bring to immunization children from families which are medically indigent, apathetic, dilatory or ignorant.

Conference on Obstetrics & Gynecology

A continuing education conference on obstetrics and gynecology will be held at The University of Iowa Health Center, Iowa City, on Thursday and Friday, December 4-5.

Chairmen of obstetrics and gynecology departments who will be guest faculty members are Dr. Henry A. Thiede, University of Mississippi; Dr. Brian Little, Cleveland (Ohio) Metropolitan General Hospital; and Dr. Robert A. Munsick, University of New Mexico. Another guest speaker

will be Dr. Madelene Donnelly, until recently director of the Division of Maternal and Child Health in the Iowa State Department of Health.

Thursday, December 4, Iowa Memorial Union

8:30 a.m. REGISTRATION—rolls and coffee will be served —Ballroom Lobby

9:30 a.m. "Maternal and Perinatal Mortality in Iowa" —Dr. Madelene M. Donnelly

9:30 a.m. "Organization and Function of a Perinatal Mortality Committee"—Dr. C. A. White

10:00 a.m. "Can Steroid Production in Pregnancy Be Used as a Test for Placental Function?"—Dr. Brian Little

11:00 a.m. "Genetics and Human Abortion"—Dr. Henry A. Thiede

11:45 a.m. "Puerperal Ovarian Vein Thrombophlebitis" —Dr. Robert A. Munsick

12:30 p.m. LUNCHEON—Main Lodge

1:30 p.m. "Why Identify High Risk Pregnancies?"—Dr. Brian Little

2:15 p.m. "What Happens to the High Risk Infant?"—Dr. George L. Baker

2:45 p.m. "The Clinical Nurse Associate and Her Potential Role in Obstetrics and Gynecology" —Dr. Henry A. Thiede

3:20 p.m. SMALL GROUP CONFERENCES:

1. "Should the Father Be Allowed in the Delivery Room?"—Dorothy J. Ryan, R.N. and Dr. Lowell R. Hughes
2. "Genetic Counselling"—Dr. Hans Zellweger
3. "Diagnosis and Treatment of Carcinoma-in-situ"—Dr. Munir Nasr
4. "Drugs in Pregnancy"—Dr. Clifford P. Goperlud
5. "Urinary Estriol in Pregnancy"—James T. Bradbury, Sc.D.
6. "Office Gynecology"—Robert M. Kretzschmar, M.D.

5:00 p.m. BUSINESS MEETING—Iowa Obstetrical and Gynecological Society

6:30 p.m. SOCIAL HOUR AND DINNER—The Highlander

Friday, December 5, Iowa Memorial Union

8:30 a.m. Coffee and rolls in Foyer

9:00 a.m. "Ob and Gyn in the Boondocks"—Dr. Robert A. Munsick

9:30 a.m. "The Computer and Gynecological Practice" —Dr. Brian Little

11:00 a.m. "Office Cytology"—Dr. Robert A. Munsick

11:45 a.m. "The Use of the Laparoscope in Diagnosis of Pelvic Pathology"—Dr. Wm. R. Anderson

12:30 p.m. LUNCHEON—Main Lounge

1:30 p.m. "The Department of Obstetrics and Gynecology in 1969"—W. C. Keettel, M.D.

2:00 p.m. "What Oral Contraceptive Should I Use?" —M. E. Yannone, M.D.

2:30 p.m. "The Problems of the Pregnant Diabetic" —Roy M. Pitkin, M.D.

3:00 p.m. Short Presentations of Current Interest:
"When Should Membranes Be Ruptured During the Course of Labor?"—Dr. David Wetrich
"Which Pregnancy Test Should I Use?" —Dr. Dianne Van Orden
"How Should the Fetal Heart Be Monitored?"—Dr. C. A. White
"Rubella Vaccination"—Dr. Clifford P. Goplerud

Morbidity Report for Sept., 1969

Diseases	Sept. 1969	1969 to Date	1968 to Date	Most September Cases Reported From These Counties
Amebiasis	1*	1*	11	Henry
Brucellosis	4	34	27	Black Hawk, Cass, Scott, Woodbury
Cat-scratch Fever	1*	1*	0	Lee
Chickenpox	33	3,461	4,865	Bremer, Dubuque, Johnson, Louisa
Encephalitis				
California	3*	3*	4	Allamakee (2), Guthrie
echo 30	1	1	0	Woodbury
viral	2	10	0	Jefferson, Winneshiek
German measles	45	2,264	1,798	Clay, Dickinson, Dubuque
Gonorrhea	391	3,101	2,916	Scattered
Histoplasmosis	2	16	26	Wapello, Warren
Infectious hepatitis	35	304	382	Scott, Woodbury
Infectious mononucleosis	17	402	281	Johnson, Linn, Polk
Leptospirosis	1*	2	8	Buena Vista
Malaria, imported				
P. falciparum	1*	5	1	Polk
P. vivax	2*	11	6	Polk, Washington
Measles	3	334	99	Butler, Polk, Scott
Meningitis				
aseptic	1*	6	3	Jackson
echo 9	2	2	2	Decatur, Scott
echo 30	1	1	0	Jackson
H. influenzae	1*	9	4	Clayton
meningococcal	2	18	54	Black Hawk, Johnson
viral	4	6	2	Hamilton, Iowa, Sac (2)
type unspecified	2	17	19	Clayton, Des Moines
Mumps	48	3,993	10,518	Cherokee, Dubuque
Pneumonia	41	352	217	Johnson, Pottawattamie
Rabies in animals	7	71	108	Scattered
Rheumatic fever	1	29	23	Pottawattamie
Salmonellosis	7	90	57	Pottawattamie, Woodbury
Shigellosis	41	68	49	Dallas
Streptococcal infection	272	3,257	3,948	Johnson
Syphilis	57	536	554	Scattered
Tuberculosis	5	93	90	Scattered
Typhoid Fever	1*	1*	2	Washington
Viremia, coxsackie B4	1	1	0	Jackson
Whooping cough	1	7	56	Story

* Delayed report.

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Adverse Reactions: Drowsiness at daytime sedative dose levels, skin rashes, "hangover" and systemic disturbances are seldom seen.

Warning: May be habit forming.

Usual Adult Dosage: As a daytime sedative, 15 mg. (¼ gr.) to 30 mg. (½ gr.) t.i.d. or q.i.d.

Available for daytime sedation: Tablets, 15 mg. (¼ gr.), 30 mg. (½ gr.); Elixir, 30 mg. per 5 cc. (alcohol 7%).

BUTICAPS® [Capsules BUTISOL SODIUM (sodium butabarbital)] 15 mg. (¼ gr.), 30 mg. (½ gr.).

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No place for beginners

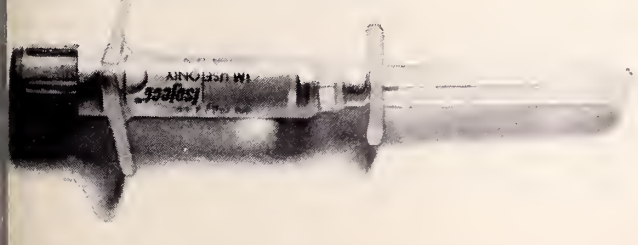
Terramycin®
oxytetracycline)

Fire victim. Examination reveals second degree burn of lower leg. To combat shock, restore circulatory volume and replace protein loss, plasma is administered. Local pressure dressing applied. Limb elevated to limit the flow of lymph. About 36 hours after admission the patient develops an elevated temperature and complains of pain at the site of the lesion. Dressing removed. A suppurating slough area has developed over part of the burn. A swab specimen is taken for culture and the slough area is debrided. Antibacterial treatment is begun with Terramycin I.M. Days later, recovery is progressing, and the laboratory report shows a mixed infection with a predominance of susceptible coliform bacteria, confirming the therapeutic choice. Terramycin therapy is continued until all signs of infection disappear.

Experience has shown that Terramycin offers special advantages in treating bacterial infections complicating burns, when strains of causative organisms are susceptible. Broad-spectrum antibacterial coverage. Activity unaffected by penicillinase. Rapidly achieved therapeutic blood levels. Proven tissue toleration.

Terramycin I.M. is the only preconstituted broad-spectrum antibiotic designed specifically for intramuscular use. Requires no refrigeration. Remains stable for at least two years. Available for immediate use in Isoject,® a disposable injection unit. In difficult as well as routine cases, when tests reveal susceptible organisms, consider Terramycin. One of the world's most widely used broad-spectrums.

Terramycin® I.M.
(oxytetracycline)



Pfizer **LABORATORIES DIVISION**
New York, N.Y. 10017

Contraindicated: In individuals hypersensitive to any of the components of this drug.

Warnings: If renal impairment exists, even usual doses may lead to excessive systemic accumulation and possible liver toxicity. In such patients, lower than usual doses are indicated and for prolonged therapy oxytetracycline serum level determinations may be advisable.

Terramycin may form a stable calcium complex in any bone-forming tissue with no serious harmful effects reported thus far in humans.

Use of oxytetracycline during the last trimester of pregnancy, neonatal period and early childhood may cause discoloration of teeth. This effect occurs mostly during long-term use of the drug, but it has also been observed in usual short-treatment courses.

During treatment with tetracyclines, individuals susceptible to photodynamic reactions should avoid direct sunlight. Discontinue therapy at first evidence of skin discomfort.

Note: With oxytetracycline, phototoxicity is not believed to occur and photoallergy is very rare.

Precautions: Use of broad-spectrum antibiotics occasionally may result in overgrowth of nonsusceptible organisms. Where such infections occur, discontinue oxytetracycline and institute specific therapy.

As with all intramuscular preparations, Terramycin Intramuscular Solution should be injected well within the body of a relatively large muscle. *Adults:* The preferred sites are the upper outer quadrant of the buttock (i.e., gluteus maximus), or the mid-lateral thigh. *Children:* It is recommended that intramuscular injections be given preferably in the mid-lateral muscles of the thigh. In infants and small children the periphery of the upper outer quadrant of the gluteal region should be used only when necessary, such as in burn patients, in order to minimize the possibility of damage to the sciatic nerve.

The deltoid area should be used only if well developed such as in certain adults and older children, and then only with caution to avoid radial nerve injury. Intramuscular injections should not be made into the lower and mid-thirds of the upper arm. As with all intramuscular injections, aspiration is necessary to help avoid inadvertent injection into a blood vessel.

Increased intracranial pressure with bulging fontanelles has been observed occasionally in infants receiving therapeutic doses of the drug, but such signs and symptoms have disappeared rapidly on cessation of treatment with no sequelae.

Adverse Reactions: Subcutaneous and fat-layer injection may produce mild pain and induration which may be relieved by an ice pack. Very mild gastrointestinal disturbances, not requiring discontinuance of the drug, may occur occasionally. Allergic reactions, including anaphylaxis, rarely have been observed.

Dosage: *Adult:* The optimal dosage varies, depending on the type and severity of infection. Unless otherwise specified, a dose of 100 mg. every 8 to 12 hours, or a single daily dose of 250 mg. should be adequate for the treatment of most mild or moderately severe infections. In severe infections, 100 mg. every 6 to 8 hours, or 250 mg. every 12 hours may be necessary.

Serum levels obtained by the recommended dosages are comparable to those provided by the oral dosage of 1 to 2 Gm. daily in adults. Antibiotic therapy should be continued for at least 24 to 48 hours after all symptoms and fever have subsided.

In certain diseases specific courses of therapy may be recommended as a general guide. In primary and secondary syphilis for example, the daily administration of 2 Gm. oxytetracycline, orally, in divided doses for two weeks has given good results. In cases of gonococcal infection two intramuscular injections of 250 mg. each, or one intramuscular injection of 250 mg. combined with one gram given orally as a single dose, will usually suffice, but repetition of this therapy will be required in an occasional case.

In the treatment of hemolytic streptococcal infections, therapy should continue for at least 10 days to prevent development of rheumatic fever or glomerulonephritis.

In the treatment of staphylococcal infections indicated surgical procedures should be carried out in all cases.

Pediatric: A dosage of 3 mg./lb./day in two doses has been found satisfactory in the treatment of most mild to moderately severe infections. For more severe infections, higher dosages may be indicated and should be adjusted accordingly.

Terramycin Intramuscular Solution provides maximum absorption and patient toleration with minimal local irritation.

Supply: Terramycin (oxytetracycline) Intramuscular Solution: available in single dose, prescored glass ampules containing 100 or 250 mg. oxytetracycline/2 cc., Isoject® syringes containing 100 or 250 mg. oxytetracycline/2 cc. and 10 cc. multiple dose vials containing 50 mg. oxytetracycline/cc.

More detailed professional information available on request.

this ulcer did not heal...until its surface was cleared of dead tissue and debris



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ELASE Ointment is applied to a deep ulceration of a finger.

EIGHTEEN DAYS LATER
Healing has progressed rapidly without interruption or interference from any accumulated purulence or necrotic tissue. Greatly reduced size of lesion and minimal scar tissue indicate quality and vigor of healing which is almost complete.



to aid in debridement to facilitate healing in chronic cutaneous ulcers...

Elase® Ointment

(fibrinolysin and desoxyribonuclease, combined, [bovine] ointment)

PARKE-DAVIS

By helping to remove dead tissue and debris from the ulcer's surface, ELASE Ointment creates a better environment for the elimination of infection, for healthy granulation...*for healing.* Its lytic enzymes effectively break down DNA in dead leukocytes and other debris...the fibrin in blood clots, serum, and purulent exudates...and the denatured proteins in necrotic tissue. Protein elements of *living* tissue are relatively unaffected. ELASE Ointment is indicated in stasis ulcers and in other infected or inflamed ulcers caused by circulatory disturbances. In cases requiring skin grafting, it is used preoperatively for debridement. For ambulatory patients debridement with ELASE Ointment is a convenient therapy and a regimen likely to be followed. *Precautions:* Observe usual precautions against allergic reactions, particularly in persons with a history of sensitivity to materials of bovine origin or to mercury compounds. *Adverse Reactions:* Side effects attributable to the enzymes have not been a problem at the dose and for the indications recommended. *Discussion:* Successful use of enzymatic debridement depends on several factors: (1) dense, dry eschar, if present, should be removed surgically before enzymatic debridement is attempted; (2) the enzyme must be in constant contact with the substrate; (3) accumulated necrotic debris must be periodically removed; (4) the enzyme must be replenished at least once daily; and (5) secondary closure or skin grafting must be employed as soon as possible after optimal debridement has been attained. It is further essential that wound-dressing techniques be performed carefully under aseptic conditions and that appropriate systemically acting antibiotics be administered concomitantly if, in the opinion of the physician, they are indicated. *Available:* ELASE Ointment is supplied in 30-Gm. tubes containing 30 units (Loomis) of fibrinolysin and 20,000 units of desoxyribonuclease with 0.12 mg. thimerosal (mercury derivative); and in 10-Gm. tubes containing 10 units of fibrinolysin and 6,666 units of desoxyribonuclease with 0.04 mg. thimerosal. ELASE Ointment has a special base of liquid petrolatum and polyethylene; contains sodium chloride and sucrose used during manufacture; is stable at room temperature through the expiration date stated on the package.

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THE DOCTOR'S BUSINESS



What Type of Image Does Your Office Present?

LARRY E. LEAVERTON
Des Moines

Is your office presenting a good image to your patients and the public? At a time when many offices are "too busy," it is easy to forget good procedures and common courtesies. Both are important parts of the public relations of a medical office.

Is your *office*—well ventilated, comfortable, arranged for smooth flow of traffic, and keyed to efficiency? Is it attractive, cheerful, colorful and modern in its furnishings and equipment? Could carpeting, draperies, pictures or planters add to the decor? Is it clean and neat? Dirty floors and walls are inexcusable in a medical office. Do any of the rooms appear cluttered? Do you have comfortable chairs in your reception room? (Don't call it a "waiting room.") Would a children's area be helpful?

Does your assistant have privacy in the business office so that her phone conversations with and concerning patients are conducted in private?

Are your consultation and exam rooms soundproofed so that voices do not carry from room to room? Background music, carpeting or acoustical materials help to achieve a degree of soundproofing. Are all of your rooms well marked to save confusion and possible embarrassment?

Are your *medical assistants*—cheerful and friendly? Every patient should be given courteous treatment. Are their apparel and their grooming in keeping with the dignity of their position? Do they have a sincere desire to help your patients? Do they make the patients feel welcome? Are they alert to any complaints about charges, or any hints regarding supposedly inadequate or improper care? Are they properly trained to assume all of the responsibilities delegated to them? Do they treat as confidential everything that goes on in the office? Do they handle the telephone properly?

Are your *records*—complete and accurate? Efficient recording of charges and issuing of receipts, itemized statements and reports reflect the quality of your office. Are insurance and other third-party forms prepared cheerfully and promptly? Would your records stand up in court or in a tax audit?

Could your *office routines and procedures*—be improved? How about your appointment system? Does your office have proper respect for the patient's time? Do you allow sufficient time for emergencies? Do you have enough telephone lines to provide good service? Is the patient given your undivided attention while in your examination room? Are fees properly explained when necessary? Are you using charge or routing tickets properly? Are you businesslike about your credit and collection policies?

How about *you as the physician*—do you carefully discuss the diagnosis and prognosis with the patient in language he or she can understand? Many patients feel dissatisfied after a visit to their doctor because they got too little information. Every patient has five basic questions he wants answered:

1. What is wrong?
2. What caused it?
3. What should be done about it?
4. How long will it take?
5. What will it cost?

Unless you answer these questions completely and intelligibly, you are likely to have a dissatisfied patient. Are you delegating every possible task without detracting from the quality of your medical care? Are your telephone calls answered night and day, and have you arranged coverage for your practice at night, on weekends or during vacations when you will not be available? Are you reasonably prompt in returning your phone calls? Are your fees reasonable and equitable? Are you making proper use of patient information and instructions, and related health literature? Are you careful that you or your family are not living ostentatiously? Are you active in some

Mr. Leaverton has been associated with Professional Management Midwest since 1949. He is a partner in the firm, and is director of its Research and Development Department.

community affairs? Participation in a few organizations helps show a sincere interest in the community that supports you. Do you give time and financial support to local charities?

How do you and your office score on these questions? Good public relations are very important in your professional relationships with your patients, your colleagues and your community.

Causes and Remedies for Malnutrition

Even people who have enough money to afford very nutritious food may have dietary deficiencies at times, a University of Iowa physician said on October 8 at a conference on malnutrition held at Iowa Memorial Union, Iowa City. Dr. Robert E. Hodges, a professor of internal medicine in the U. of I. College of Medicine, spoke on the topic, "Hidden Hunger: Detecting Vitamin Deficiency." The conference was sponsored by the U. of I. College of Medicine, Department of Internal Medicine, and University Hospitals together with the Iowa Medical Society, the Iowa Hospital Association, the Iowa Dietetic Association, and the Iowa State Department of Health.

"As the availability of convenience foods such as snacks and soft drinks increases, so does the opportunity for people to get nothing but calories," Dr. Hodges pointed out. "This does not mean that these foods are bad," he added, "but that people must be careful not to consume only these foods or too much of them instead of nutritious foods."

"Skipping breakfast, eating only a candy bar and drinking a bottle of pop for lunch and similar bad eating habits can bring on malnutrition," Dr. Hodges warned. "Too much dependence on certain foods to the exclusion of others can also lead to malnutrition," he explained. For example, milk is an excellent nutrient food, but has very little iron. Therefore, relying entirely on milk for vitamins and minerals can lead to iron deficiency, he said.

"The basic problem usually is indifference, although ignorance sometimes is the reason for poor eating habits," he explained.

Because vitamin and other dietary deficiencies occur before symptoms appear, Dr. Hodges recommended thorough physical examinations, dietary histories, and biochemical analyses of the blood to detect hidden hunger.

Dr. Sidney S. Kripke, assistant professor of pediatrics in the U. of I. College of Medicine, discussed a recent study to detect iron deficiency anemia in Iowa children. It was carried out through the clinics sponsored by the State Services for Crippled Children (SSCC).

"During a nine-month clinic term, we included 583 children less than three years old, drawn from more than 6,000 young people less than 21 years old seen in the SSCC clinics," according to Dr. Kripke. "We found that 4.1 per cent of the sample group had anemia by all usual medical standards," he explained. Dr. Kripke also said that none of these children had been referred to the clinics for blood problems or signs of anemia, and that none had a severe case.

"Although the children studied were not a random sample for they had previously recognized health problems, they otherwise seemed to represent an average group of Iowa children," Dr. Kripke explained.

Most studies on anemia in children have been performed in large cities on groups of poor children among whom the extent of poverty and incidence of anemia are greater than in Iowa, he said.

In the anemic group discovered in the Iowa study, 23 of the 24 were less than two years old, Dr. Kripke pointed out. This predominance had been shown in other studies, he said, for they also showed that the incidence of anemia is related to age and to low birth weight. "Anemia can be prevented by feeding infants formulas and cereals fortified with iron," he said, "and by avoiding excessive milk intake. If the child already is anemic, iron medication should be prescribed by his physician."

Mrs. Eleonora Sanders, internship and education director for the U. of I. Department of Nutrition, discussed improved education for Iowa mothers. "During the SSCC clinics, we were able to interview and instruct mothers about their children's diets," Mrs. Sanders said. One complete 24-hour recall of all food and liquid intake for each child was obtained from the mothers, she explained. "Although there was a general lack of knowledge about proper diet for their children, the mothers were eager to obtain as much information as possible," Mrs. Sanders pointed out.

"Mothers often ask whether snacks are good or bad for their children. We tell them that *nutritious* snacks, not just 'empty calories,' are all right," she said.

"Mothers also hear conflicting reports about fortified foods and wonder whether they should feed these foods to their children. If they know that lists of ingredients are arranged in descending order by quantity on packages, they can tell what substances are present in greatest and least amounts, even if the units are confusing," Mrs. Sanders explained.

"A good general rule is: Don't add salt or sugar to natural foods such as fruit and cereal," she said, "since natural foods contain enough of these substances already."

Dr. Mary B. McCann, medical officer for the nutrition program of the United States Public Health Service, discussed a national plan for nutrition.



Personals



Dr. Daniel B. Stone, a professor of internal medicine who served for some time as executive associate dean of the U. of I. College of Medicine, has been named dean of the Boston University School of Medicine. Dr. Stone is expected to take over as head of the Boston school sometime between January 1 and February 1, 1970. Dr. Stone came to the U. of I. in 1957. He graduated with honors from the medical school of the University of London in 1948.

Dr. J. G. Clapsaddle, of Burt, was hospitalized at Mercy Hospital in Mason City after a fall sustained at his home on Saturday, September 13.

Dr. Ronald M. Lauer, professor of pediatrics and director of the Section of Pediatric Cardiology at the U. of I., spoke at the September 30 dinner meeting of the Southeastern Division of the Iowa Heart Association, in Burlington.

Dr. R. E. Olson has been named to succeed **Dr. Edward R. Wheeler** on the Muscatine County Board of Health.

Dr. Henry C. Blount, Jr., of the radiology department at Iowa Lutheran Hospital, Des Moines, presented a lecture on French cameo glass at the Laura Musser Museum in Muscatine on Sunday, September 14. Dr. Blount owns one of the largest collections of this type in the United States, and he displayed numerous examples throughout his lecture. He traced the history of French cameo glass, and described three techniques used in its production. Dr. Blount is also the author of a book on the subject.

Dr. H. Stanley Thompson, an assistant professor of ophthalmology at the U. of I. College of Medicine, has been named recipient of a Research Career Development Award from the U. S. Public Health Service. He was selected for the award by the National Institute of Neurological Diseases and Blindness. Dr. Thompson's special interest is in visual difficulties resulting from strokes and brain tumors, and in abnormal eye movements. His research is concerned with the activity of the pupil of the eye.

Dr. Alfred Healy, of the Birth Defects Treatment Center in Iowa City, and **Dr. John Foss,** a Burlington obstetrician and gynecologist, participated at a seminar for nurses on the misuse of drugs in relation to birth defects, held on Wednesday, September 15, at Burlington's Holiday Inn.

Dr. Alfred Herlitzka, of Mason City, participated in a conference on acute trauma sponsored by District 10, Iowa Nurses Association and held on Tuesday, September 23, at the Holiday Lounge in Clear Lake.

The Iowa Chapter of the Arthritis Foundation recently released the outline of an arthritis home care program. **Dr. William A. Baird,** of Ames, state chapter president, said the program "may prove effective in preventing nearly 85 per cent of the crippling effects of rheumatoid arthritis" when started in time and with professional medical help. Dr. Baird said 30,000 copies of a 24-page book describing the program are available at the chapter's offices, 914 Locust Street, Des Moines.

Dr. James W. Rathe, of Waverly, president of the Iowa Heart Association, presided at the Symposium on Cardiovascular Disease held at the U. of I. on September 19-20. The program was sponsored by the Iowa Heart Association in cooperation with the Great Plains Association.

Dr. Maurice W. Van Allen, a professor of neurology at the U. of I., spoke on "An Iowa Family With Amyloidosis" at an international symposium

on primary amyloidosis held on September 29 at the Caylor-Nichel Clinic, in Bluffton, Indiana.

Drs. Frank Kroetz, an associate professor of internal medicine, and **Michael Korns**, an assistant professor of pathology from the U. of I. College of Medicine, were guest speakers at the formal opening of the four-bed cardiac care unit at the Mahaska County Hospital, in Oskaloosa, early in September.

Dr. Rodney Miller has returned to practice in Sac City in association with **Dr. David Youberg**. Dr. Miller has been in the United States Army the past two years, much of the time in Viet Nam. He had practiced in Sac City for several years prior to entering the service and is pleased to be returning to his private practice.

Dr. Kenneth E. Lister, of Ottumwa, was named chairman of the professional division for the Wapello County United Fund Campaign.

Dr. Walter J. Kopsa, of Tipton, was elected first chairman of the Board of Directors and **Dr. Earl DeShaw**, of Monticello, was elected president-elect, at the initial meeting of the eight-county Hoover Health Council of Iowa, held on Tuesday, September 16, in Cedar Rapids. The following doctors were elected to serve as directors from their respective counties—Cedar County, Dr. Kopsa; Delaware County, **Dr. John Tyrell**, of Manchester; Iowa County, **Dr. C. F. Watts**, of Marengo; Johnson County, **Dr. Stanley W. Greenwald**, of Iowa City; Jones County, Dr. DeShaw; Linn County, **Dr. L. C. Strathman**, of Cedar Rapids; and Washington County, **Dr. Elvina N. Martens**, of Washington.

Dr. Pak Chue Chan returned to Iowa in mid-September, and has been renewing his friendships in Ames and throughout the rest of Iowa. He last revisited the state in July, 1967. Dr. Chan resigned from the medical staff of the Iowa State University Hospital in July, 1961, to establish Promise, Inc. in Kowloon, an area close to Hong Kong. Promise, Inc. is a clinic-school-church complex, and its clinic component was doubled early in 1962 when the Chans' son-in-law and daughter, **Drs. Kik Kiu** and **Lillian Ding**, arrived. The project now serves from 1,500 to 2,000 patients per month.

Initially and throughout the past eight or nine years, funds for Promise, Inc. have come from concerned individuals throughout the Midwest and elsewhere in the U. S. The Chans and Dings have never taken any salaries. ISU students have played an important role. They made up the original board of directors of Promise, Inc., and have contributed to its support ever since. Dr. Chan has maintained his membership in the Iowa Medical Society.

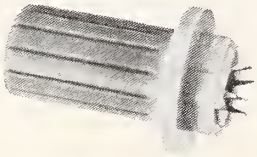
Dr. Cemal Adli, of Council Bluffs, has been selected to direct a medical self-help course to be sponsored by the Pottawattamie County Municipal Civil Defense. The course will train persons to take care of themselves in case of any kind of an emergency. It will be conducted by the Pottawattamie County Medical Society, and other doctors in the area will assist Dr. Adli.

Dr. Kazem Fathie, of Cedar Rapids, attended the Congress of Neurological Surgeons held in Boston on September 18-20. Following the Boston meeting, Dr. Fathie attended the World Congress of Neurological Surgeons in New York City from September 20-27.

Several members of the College of Medicine faculty spoke at a conference on geriatrics held in Iowa City early in October under the sponsorship of the Physical Therapy Education Program

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and attended by personnel of various health professions. **Dr. Maurice D. Schnell,** an assistant professor of orthopedic surgery, discussed the principal musculoskeletal problems facing the elderly, especially osteoporosis. He said such people should be provided high-protein, low-calorie diets with supplements of vitamin D and, where needed, added calcium as a means of lessening their susceptibility to fractures. He emphasized the importance of early ambulation for elderly patients following surgery.

Dr. Adolph L. Sahs, head of neurology, said that most nervous-system diseases of the aged are caused by metabolic malfunctions. He, too, stressed early ambulation following surgery. **Dr. Joseph I. Routh,** a professor of biochemistry, discussed changes in cellular enzyme content which may lower the level of hemoglobin in the aged.

Dr. George N. Bedell, a professor of internal medicine, talked about emphysema and chronic bronchitis, and pointed to smoking and pollutants in the atmosphere as two remediable causes of those diseases. He also mentioned the importance of regular exercise as a means of preserving muscle tone and good joint motion. **Dr. Richard Finn,** an assistant professor of psychiatry, said that all of us have negative feelings about growing old. Depression, he pointed out, comes from loss of function of sense organs, loss of physical attractiveness, and a consequent feeling of isolation.

Clyde M. Berry, Ph.D, a professor of preventive medicine and environmental health at the U. of I., has been elected a member and a director of the Occupational Health Institute, an affiliate of the Industrial Medical Association. The OHI has handled accreditation of industrial-medicine departments, and is now expanding the scope of its activities in the whole field of occupational health.

Dr. Arthur A. Spector, an assistant professor in the Departments of Internal Medicine and Biochemistry at the U. of I., has been named recipient of a Research Career Development Award from the U. S. Public Health Service. Such awards are intended to help support young scientists of superior potential who are continuing to develop in productive careers of independent research and teaching in the health sciences. Dr. Spector was selected for the award by the National Heart Institute. His research is concerned with the relationship between the levels of fat in the blood plasma and the development of atherosclerosis. Dr. Spector's studies are aimed at understanding

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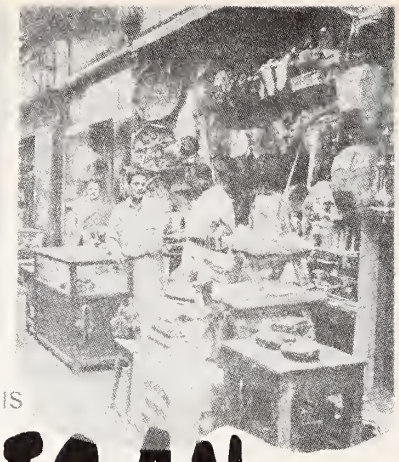
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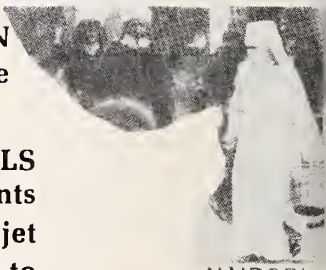


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the mechanisms that regulate the deposition of fats in blood-vessel walls. Dr. Spector received A.B. and M.D. degrees from the University of Pennsylvania. Following service as a research medical officer in the U. S. Navy, he became a postdoctoral fellow in biochemistry at the National Heart Institute's Laboratory of Metabolism. He was a senior investigator at the Heart Institute from January, 1965, until joining the U. of I. faculty in 1968.

On Friday, October 10, the largest number of surgeons in the history of the American College of Surgeons were inducted as new fellows in cap-and-gown ceremonies during its annual five-day Clinical Congress, held in San Francisco. The Iowa doctors of medicine receiving this distinction and their specialties are as follows: **Herbert B. Tjaden,** Burlington, urology; **Robert H. Westfall,** Council Bluffs, general surgery; **Robert H. Foss,** Des Moines, ophthalmology; **Anthony J. Piasecki,** Dubuque, orthopedics; **Robert L. Kent,** Fort Madison, obstetrics and gynecology; **James R. Leonard,** Iowa City, otolaryngology; **Brian F. McCabe,** Iowa City, otolaryngology and maxillofacial surgery; **Bruce E. Spivey,** Iowa City, ophthalmology; **Robert C. Watzke,** Iowa City, ophthalmology; **Warren V. Wulfekuhler,** Mason City, urology; **Ahmad Akbari,** Sioux City, urology; **Leonard H. Boggs, Sr.,** Sioux City, obstetrics and gynecology; **Edward J. Hagen,** Sioux City, obstetrics and gynecology and **Richard L. Vaught,** Sioux City, urology.

Dr. Frederick Brush, of Mason City, told of his experiences aboard the *S. S. Hope,* at the Presbyterian Church in Shenandoah on Thursday, September 25. Dr. Brush has done volunteer work on the *S. S. Hope* twice. He first served for a period of two months in Colombia, South America and the second time in Ceylon.

Dr. Einer Juel, of Atlantic, discussed "Child Problems and Understanding Teenagers" at the September 30 meeting of the Elk Horn-Kimballton Community Adult Homemakers.

Dr. John Ghatan, who studied medicine at the University of Geneva, in Switzerland, and interned at Queens General Hospital, in New York City, began general practice in Pisgah on October 1. The town is building him an office that will be ready for occupancy in about two months. He is a native of Iran, and he and Mrs. Ghatan have a son and a daughter.

Dr. Arthur Ames, of Storm Lake, has been appointed Buena Vista County medical examiner. He has been in practice with **Dr. Paul Brecher** there, since May of this year.

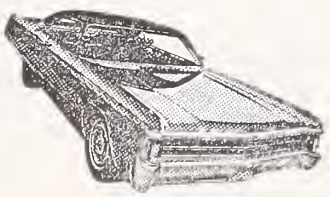
The commencement address at St. Luke's School of Practical Nursing, in Cedar Rapids on September 12, was given by **Dr. John Huey.** The graduating class numbered 31.

The Southwestern Division of the Iowa Heart Association held its fall program for nurses in Shenandoah on October 22. **Dr. Ronald Mahoney,** a fellow in clinical cardiology at the U. of I. College of Medicine, spoke on the recent advances in his specialty.

Dr. Jerry Edelman, a native of Nebraska and a 1967 graduate of the University of Nebraska Medical School, joined **Drs. Thomas R. Viner** and **Thomas R. McMillan** in general practice at Leon on October 1. He interned at a hospital in Columbus, Ohio, and recently served with the Army Medical Corps in Vietnam. He and Mrs. Edelman have three children, aged six, two and one.

Drs. Emmet Ayers and **E. E. Schmiedel** and their wives, of Oelwein, returned early in October from a 21-day trip to the Orient. The physicians at-

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tended seminars in Tokyo, Bangkok, Hong Kong, Kyoto and Hakone.

Dr. Walter Block, a Cedar Rapids pediatrician, discussed "Sex Education of Our Children" at a meeting of the alumnae of St. Luke's Methodist Hospital Nursing School, there, on October 6.

Dr. A. S. Norris is vehement in advising against the legalization of marijuana. "Very little is known about the stuff," he declares, "and any drug that has the power to DO has the power to HARM!" Dr. Norris is a professor of psychiatry at the U. of I. College of Medicine.

At a day-long meeting of Head-Start personnel and volunteers at Mt. Pleasant on September 25, **Dr. Frank Harper,** of Fort Madison, spoke on first aid and other emergency procedures. Dr. Harper is medical director for the Southeast Iowa Community Action Organization's Head Start program.

Mr. Donald L. Taylor, executive vice-president of the Iowa Medical Society, has been appointed to a four-year term on a newly-created advisory committee to the executive vice-president of the AMA.



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On September 23 **Dr. R. R. Hansen** terminated his practice in Marshalltown after 60 years of work there. He is a 1907 graduate of the University of Illinois College of Medicine, he interned at St. Mary of Nazareth Hospital, in Chicago, and located in Marshalltown immediately thereafter. During World War II he was just one of two surgeons remaining in town. He is a Life Member of the Iowa Medical Society.

Dr. A. Reas Anneberg, of Carroll, succeeded to the presidency of Iowa Academy of Ophthalmology and Otolaryngology at the organization's meeting in Iowa City on September 20. **Dr. Harry W. Alcorn,** of Mason City, was chosen as president-elect, and **Dr. Thomas R. Updegraff,** of Waterloo, vice-president.

At the annual meeting of the Iowa Chapter of the American Academy of General Practice, held in Des Moines in September, **Dr. W. A. Seidler,** of Jamaica, succeeded **Dr. H. E. Rudersdorf,** of Sioux City, as president; **Dr. Harold Moessner,** of Amana, was made president-elect; **Dr. Charles Beckman,** of Kalona, was elected vice-president; and **Dr. George Kern,** of Des Moines, was reelected secretary-treasurer. **Dr. Edward Croxdale,** of Villisca, and **Dr. Carl Aschoff,** of Cedar Rapids, were elected to three-year terms on the board of directors; and **Dr. Verne L. Schlaser,** of Des Moines, and **Dr. Lee Rosebrook,** of Ames, were named delegate and alternate delegate, respectively, to the American Academy of General Practice.

State Auditor Lloyd R. Smith created some consternation in Burlington early in October when he declared, through one of his audit supervisors, that the deputy medical examiner system in use there had no legal justification, and that physicians serving the county under that arrangement could not be paid for their services. Some time ago, when none of the physicians in the county had consented to accept appointment as county medical examiner, the board of supervisors appointed all of the physicians deputy medical examiners, an arrangement that the doctors regarded as satisfactory.

Dr. John F. Maughan, terminated his general practice in Newton on October 1, to begin a residency in radiology at the University of Iowa.

Dr. Otto Stegmier, of Moline, Illinois, was elected president of the Iowa Dermatological Society, during the group's annual scientific and business meeting in Iowa City on October 3 and 4. **Dr. Dan A. Bovenmyer,** of Davenport, was chosen as vice-

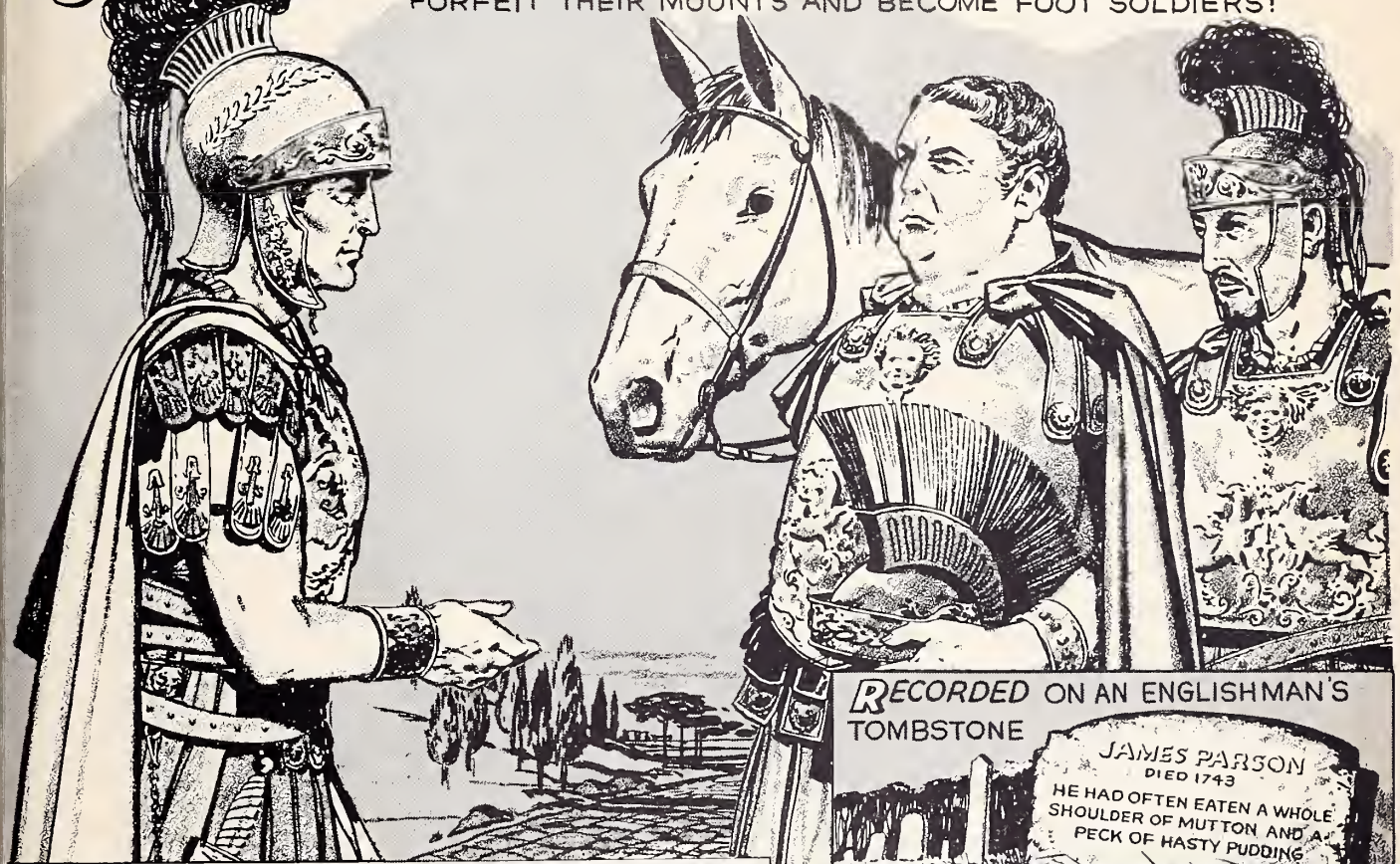
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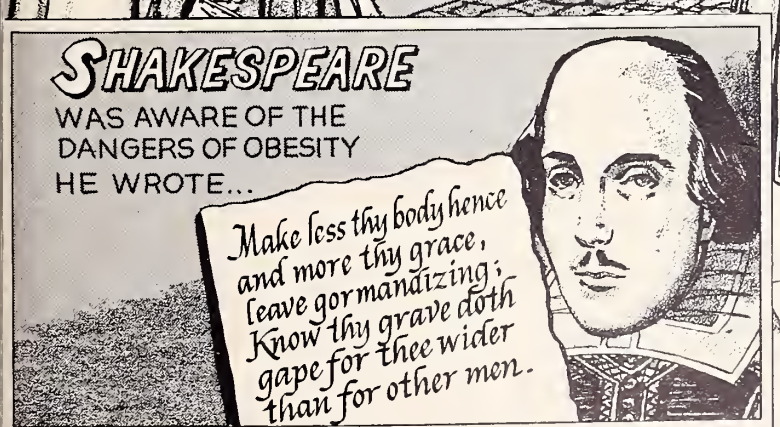
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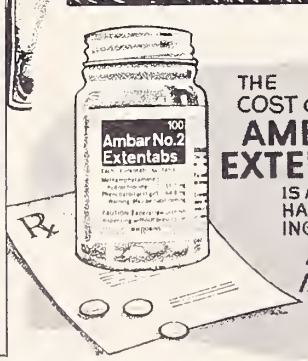


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president, and **Dr. J. C. Timmerman,** of Iowa City, was reelected secretary-treasurer.

Dr. Webster B. Gelman, an Iowa City orthopedic surgeon, participated in a postgraduate course in his specialty at the University of Buenos Aires, in Argentina, from October 12 to 17. His lectures dealt with surgery of the back. Prior to that meeting, he attended one presented by the Societé Internationale de Chirurgie Orthopedique et de Traumatologie, October 4 to 10, in Mexico City.

Two faculty members from the U. of I. College of Medicine addressed the urology section of the 38th annual meeting of the American Academy of Pediatrics, in Chicago during mid-October. **Dr. Raymond G. Bunge** presented a paper on orchiopexy and testicular biopsy, and **Dr. Rubin H. Flocks** spoke on transurethral resection of the urethral valves.

At the October 7 meeting of the Wapello County Medical Society, held at the Sunnyslope Extended Care Center, **H. Daniel Lewis, Jr., M.D.,** discussed "Management of Hypertension." Dr. Lewis is on the staff of the Kansas City Veterans Administration Hospital.

During the annual meeting of the American Academy of Pediatrics, at the Palmer House, Chicago, October 18-23, **Dr. Franklin H. Top,** head of the Department of Preventive Medicine and Environmental Health at the U. of I. was given the 1969 Clifford G. Grulee Award. Dr. Grulee was one of the founders and for many years the secretary of the Academy, and the award named for him consists of a medal and a citation. Dr. Top was honored for his meritorious service on the Academy's Committee on Infectious Diseases, and notably as editor of the Committee's regularly published advice regarding the prophylaxis and treatment of such ailments that is popularly known as "the red book."

Dr. J. R. Leonard, an assistant professor of otolaryngology at the U. of I. College of Medicine, will be one of the guest speakers at the International Medical Assembly which is to be held at the Hilton Palacio Del Rio, in San Antonio, January 26 to 28. The topic or topics on which he will lecture have not yet been announced.

The Proctor Medal of the Association for Research in Ophthalmology was presented to **Dr. Hermann M. Burian,** a professor of ophthalmology

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at the U. of I. College of Medicine, at the organization's meeting in Chicago on October 11. It is presented for "outstanding contributions in ophthalmological research." Dr. Burian delivered the Proctor Lecture on "Temporal Aspects of the Electric Response of the Human Eye."

Three faculty members from the U. of I. Institute of Agricultural Medicine participated in the Fourth International Congress of Rural Medicine, in Tokyo from September 30 to October 4. **Dr. Franklin H. Top,** head of preventive medicine and environmental health and director of the Institute, gave an address entitled "The Hospital: Crossroads of Infection." **Keith R. Long, Ph.D.,** chief of the Institute's toxicology section, reported on "Pesticide Residues in the Blood of Migrant Field Workers in Relation to Occupational Exposure," and **L. W. Knapp, Jr., M.S.,** head of the accident-prevention section of the Institute, gave a lecture entitled "Looking at Human Behavior for Clues to Accidents Associated With the Man-Machine Interface," and showed a moving picture on the same topic.

Deaths

Dr. William A. Tice, 55, a Waterloo psychiatrist, died at his home there on Wednesday, September 17. A graduate of the U. of I. College of Medicine, Dr. Tice was the first psychiatrist to establish a practice in Black Hawk County. At the time of his death, he was the medical director for the mental health facility at the Lutheran Children's Home, in Waverly, for the Cedar Valley Mental Health Clinic, in Waverly, and also for the Benton County Psychiatric Clinic, in Vinton. Dr. Tice also played a major part in establishing the mental health clinics in Marshalltown and Decorah. He was a fellow of the American Psychiatric Association and a member of the Iowa Psychiatric Association.

Dr. Roy Kneale Keech, 91, who retired from medical practice in 1967 after 58 years of work in Cedar Rapids, died thereon October 1. He attended Iowa State College, in Ames, took his M.D. at Rush Medical College in 1901, and practiced in his native Illinois until moving to Iowa in 1909. He was in the Army Hospital Corps during World War I, and briefly thereafter he served as a district medical officer for the Veterans Administration. He was a Life Member of the Iowa Medical Society.

Dr. John H. Fraser, 79, who practiced general medicine in Monticello for 46 years, died of lung cancer on September 25 at Mercy Hospital, Cedar Rapids. He was born in Selkirk, Scotland and received his elementary and secondary-school education in that country. He received an M.S. from Iowa State College, Ames, in 1915, and his M.D. from the University of Illinois College of Medicine in 1919. He was a Life Member of the Iowa Medical Society.

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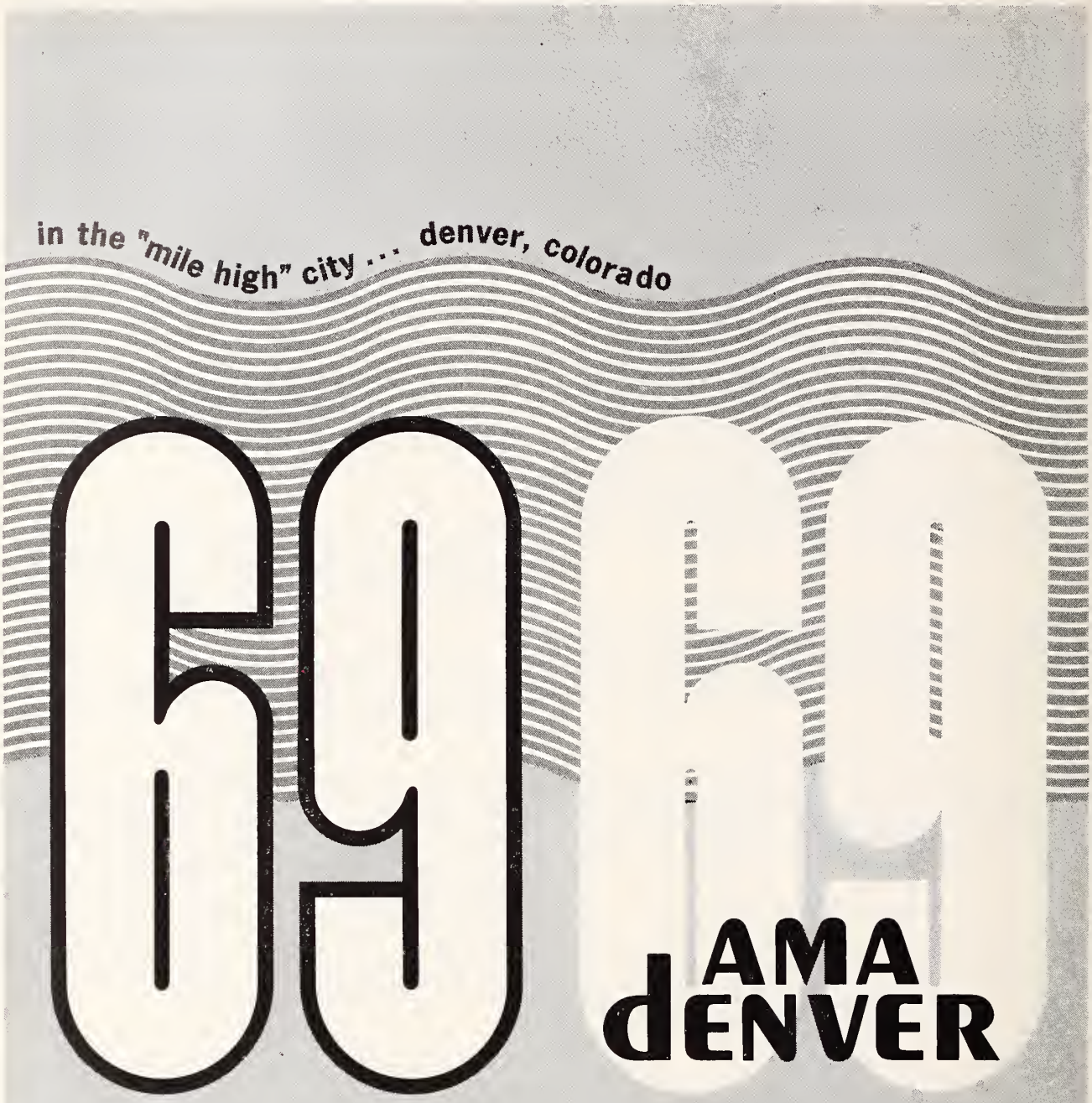
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- Inorganic Phosphate Therapy of Hypercalcemia—Donald M. Christie, Jr., M.D., and Maher Azer, M.B., B.Ch., D.M.
- Stilphostrol Therapy in 100 Cases of Prostatic Carcinoma—P. L. Rohlf, M.D., and R. H. Flocks, M.D.
- Mercy Hospital, Des Moines, Clinicopathologic Conference—Recurrent Pneumonia With Sinusitis and Angiitis

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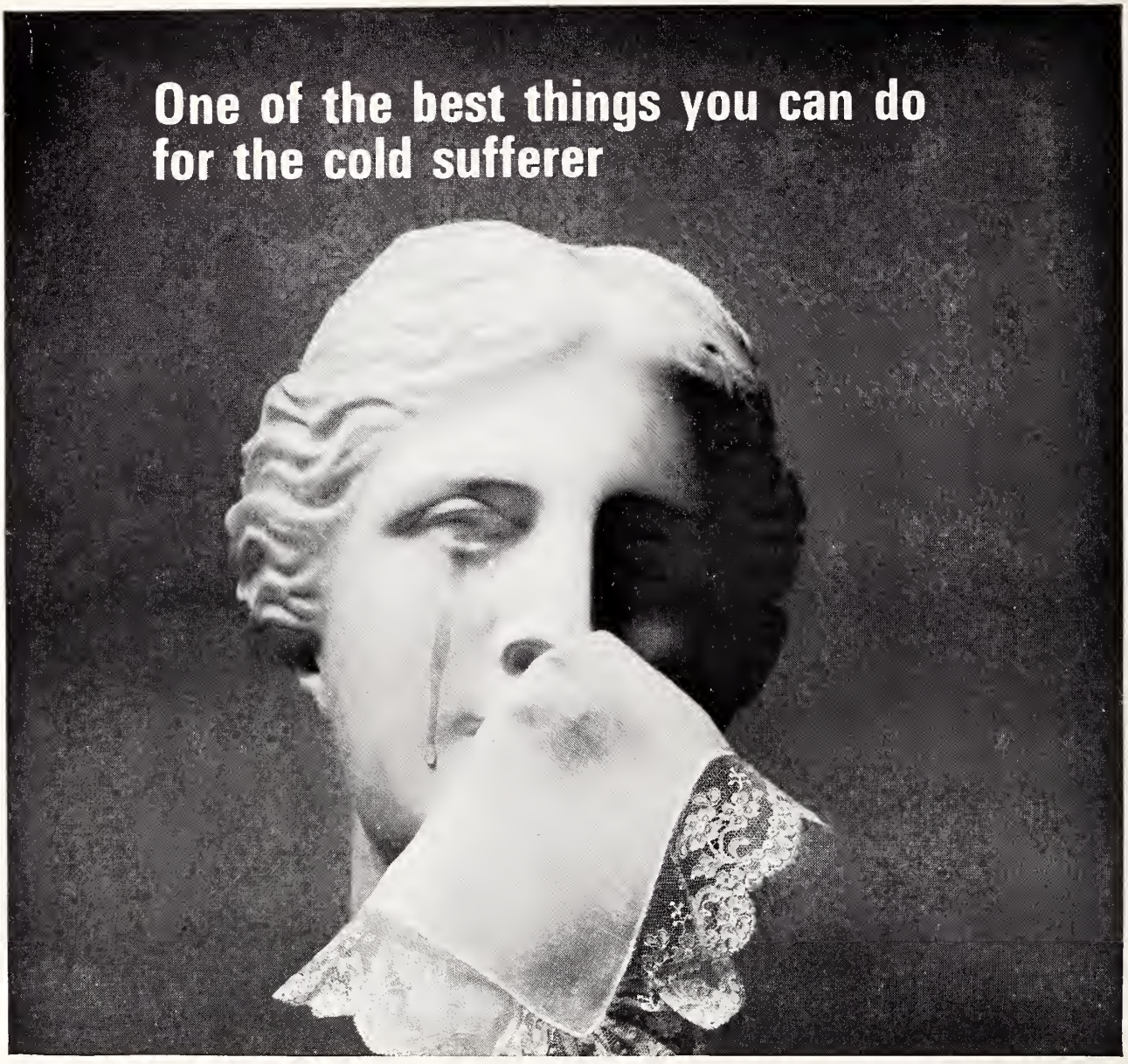
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Precautions: Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

Side Effects: Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes; a rare case of exfoliative dermatitis has been reported. Photosensitivity; onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose related. Transient increase in urinary output, sometimes accompanied by thirst (rare). Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth—dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs, discontinue medication and institute appropriate therapy. Demethylchlortetracycline may form a stable calcium complex in any bone-forming tissue with no serious harmful effects reported thus far in humans.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products. Treatment of streptococcal infections should continue for 10 days, even though symptoms have subsided.

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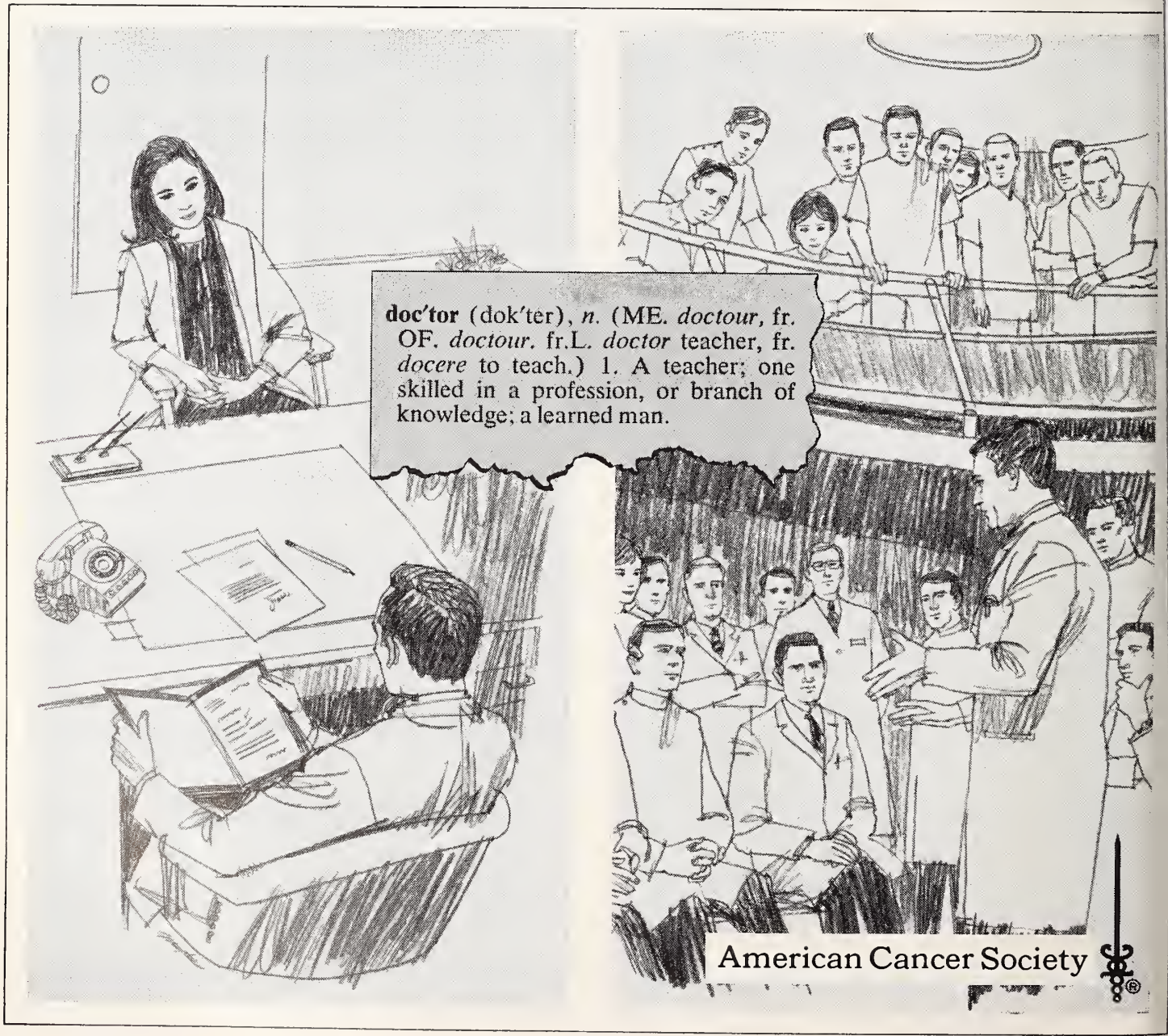
The Doctor

One of the doctor's most important roles is in education.

For his patients, the physician provides the facts, supplies the rationale, triggers the action for life-saving health practices. To his students, he passes on his knowledge and the benefits of his clinical experience. With his colleagues, he shares new information and concepts.

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If, as Henry Brooks Adams speculated, "A teacher affects eternity; he can never tell where his influence stops", the outlook is optimistic.





The Month in Washington

Washington—An AMA spokesman recently outlined his organization's voluntary national health insurance plan, "Medicredit," for consideration by the House Ways and Means Committee. Dr. Russell B. Roth, speaker of the AMA's House of Delegates and a practicing physician in Erie, Pennsylvania, said the AMA plan, which would be financed in part by federal income tax credits, is flexible and would assure adequate health care protection to all Americans, no matter how limited their financial resources.

"Representing this country's physicians as it does," Dr. Roth said, "the AMA is on record in its belief that it is the basic right of every citizen to have available to him good health care. Today we want to put before this Committee a plan which is universal in scope, voluntary in nature, and realistic in terms of total program cost."

He estimated the program would cost the federal government $8 billion to $9 billion a year, but of that amount about $3 billion a year would be offset by liquidation of the Medicaid program. Medicare would continue. "For those in low-income categories, this protection is now theirs without expense or contribution on their part," Dr. Roth said. "For those with moderate and higher levels of income, Medicredit would provide a system of cash incentives to enable them to protect themselves against major health care costs. . . .

"Our proposal is the result of years of careful study of our existing mechanisms for delivering and financing health care, coupled with our close study of the federal government's ability to fund a universal health insurance program. . . .

"It would give to persons who have purchased comprehensive health insurance the option of receiving a tax credit on their annual federal income tax return, a credit based on their tax liability. That is, a taxpayer could take as a credit against the amount of income tax owed to the federal government, all or part of his personal cost for comprehensive health coverage. Persons or families with a low tax liability (usually reflecting lower income or more dependents and allowable expenses) would receive a greater tax credit. And those families in the lower 30 per cent income range would, without cost to them, receive a certificate enabling them to purchase health coverage from qualified groups or plans."

The AMA plan calls for establishing a "Health Insurance Advisory Board" to create Medicredit guidelines. It would be chaired by the Secretary of Health, Education, and Welfare and would include the Commissioner of Internal Revenue and public members. It would review the effectiveness of the program and would file annual reports with the President and the Congress.

Basic medical benefits of Medicredit would include:

—Up to 60 days of inpatient hospital services, including maternity services;

—All emergency room and outpatient services provided in the hospital;

—All physicians' services, whether performed in the hospital, home, office or elsewhere.

Supplemental benefits to basic coverage would also be eligible for tax credits.

Dr. Roth stressed the importance of utilizing private insurance carriers, thus taking maximum advantage of private-sector competition to help hold costs down.

Rep. Durward G. Hall, M.D. (R., Mo.), a former member of the AMA House of Delegates submitted another national health insurance plan to the Committee. The first part of his two-part plan calls for the federal government to give certificates covering certain specified basic health protection to all persons eligible for Medicaid with health insurance. The states would have the responsibility for the balance of health care for an eligible individual after his basic coverage had been exhausted. Thus, the Hall plan would replace Medicaid.

The second part of the Hall proposal calls, in cases of catastrophic illness, for the federal government to help those persons who can afford normal health-care insurance only.

Other national health insurance plans are being sponsored by Walter Reuther, head of the automobile workers' union; the AFL-CIO; Sen. Jacob K. Javits (R., N. Y.), and Gov. Nelson Rockefeller of New York.

Indications are that the Committee will not give serious consideration to such legislation before next year at the earliest, but it appears probable that the issue will come to a vote in Congress before the 1972 elections.

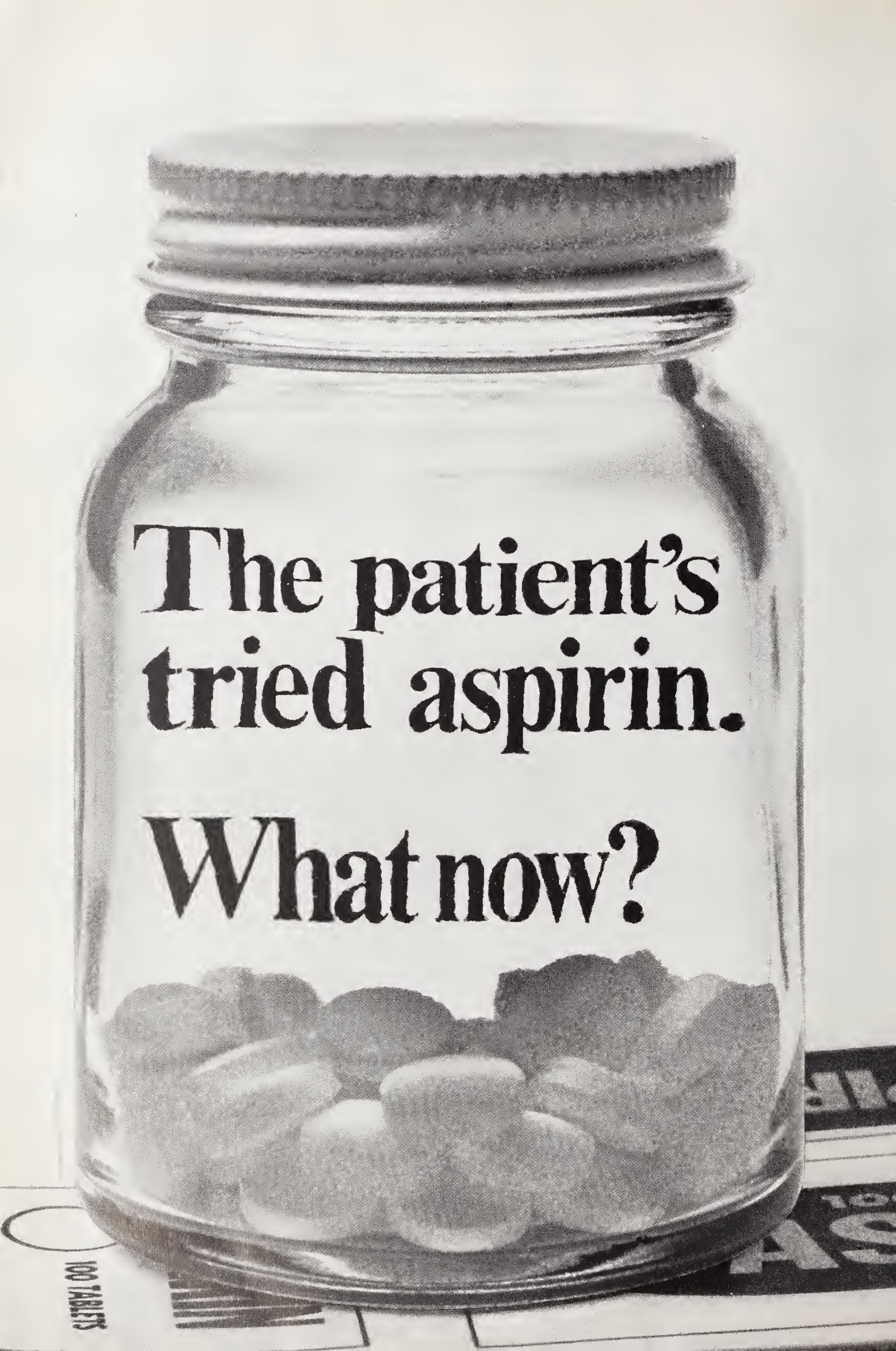
* * *

The AMA also submitted to the Ways and Means Committee a statement on the Nixon Administration's proposed "Health Cost Effectiveness Amendments of 1969."

The AMA commended the Department of Health, Education and Welfare for its efforts to curtail the rising costs of Medicaid and Medicare, but said that the Association believes there are better and more appropriate means of meeting this problem.

As for the provision prohibiting payment to physicians who have committed fraud, overcharged or otherwise abused the Medicare pro-

(Continued on page 1082)


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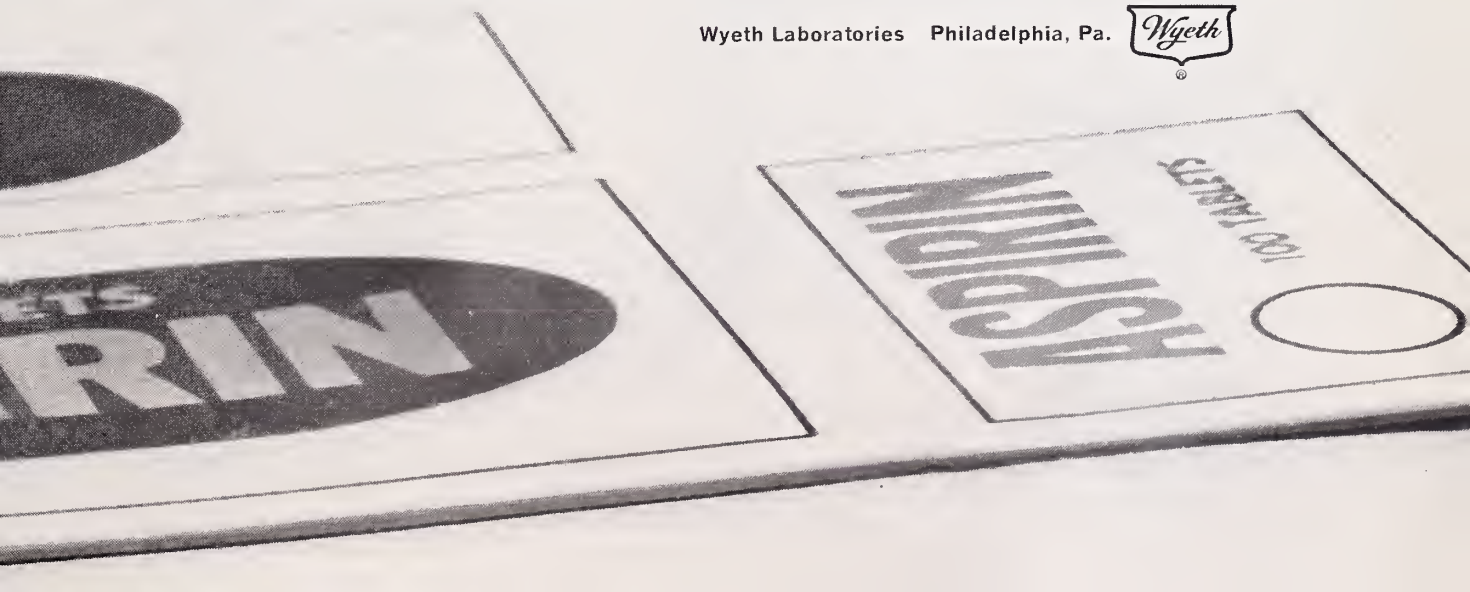
Precautions: Keep out of reach of children. Not recommended for patients 12 years old or less. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use of meprobamate in susceptible persons—as alcoholics, ex-addicts, severe psychoneurotics—has resulted in dependence or habituation. Withdraw gradually after prolonged excessive dosage to avoid possibly severe withdrawal reactions including epileptiform seizures. Warn patients of possible reduced alcohol tolerance, with resultant slowed reactions and impaired judgment and coordination. If drowsiness, ataxia or visual disturbances (impairment of accommodation and visual acuity) occur, reduce dose. If symptoms persist, patients should not operate machinery or drive. After meprobamate overdose, prompt sleep, reduction of blood pressure, pulse and respiratory rates to basal levels, and hyperventilation are reported. Give cautiously and in small amounts to patients with suicidal tendencies. Treat attempted suicide (has resulted in coma, shock, vasomotor and respiratory collapse and anuria) with gastric lavage and appropriate symptomatic therapy (CNS stimulants and pressor amines as indicated). Two instances of accidental or intentional significant overdosage with ethoheptazine and aspirin have been reported. These were accompanied by CNS depression (drowsiness and lightheadedness) but resulted in uneventful recovery. On basis of pharmacologic data, CNS stimulation could be anticipated, with nausea, vomiting and salicylate intoxication (requires induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, and observation for hypoprothrombinemic hemorrhage [usually requires whole blood transfusions]).

Adverse Reactions: Ethoheptazine and aspirin may cause nausea with or without vomiting and epigastric distress in a small percentage of patients. Dizziness is rare at recommended dosage. Meprobamate may cause drowsiness, ataxia and rarely allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses. Such patients may have had no previous contact with meprobamate and may or may not have an allergic history. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have been reported. If allergic reaction occurs, discontinue meprobamate; do not reinstitute. Severe reactions, observed very rarely, include fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. These cases should be treated symptomatically including, when indicated, such medication as epinephrine, antihistamine and possibly hydrocortisone. A few cases of leukopenia, usually transient, have been reported on continuous use. Rarely, aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia have been reported, almost always in presence of known toxic agents.

Overdosage: See precautions section for management of overdosage.

Composition: 150 mg. meprobamate, 75 mg. ethoheptazine citrate and 250 mg. aspirin per tablet.

Wyeth Laboratories Philadelphia, Pa. Wyeth®



The Month in Washington

(Continued on page 1079)

gram, the AMA said: "It should be kept in mind that there already are remedies to reach the cases of abuse which may exist—certainly the cases of extreme abuse which HEW has asserted these proposed penaltics are intended to reach. While it is true that the law does not provide authority to disqualify physicians as to prospective participation, a carrier may reject or review a physician's claims on an individual basis as each claim is presented.

"The apparent concern of the Congress regarding alleged abuses and increasing program costs may require some changes in the administration of federally financed health care programs. However, the proposed amendments appear to introduce more severe remedies than the problems require."

As for the provision that utilization review committees must pass retroactively on the medical necessity of admissions of Medicare patients to hospitals, the AMA said that at the present time a utilization-review plan of an institution must provide for review, on a sample or other basis, of the admissions, duration of stays, and services furnished, but must provide for review of each case of extended stay and also determine the medical necessity of a further stay. The law provides for three additional days of benefit payments after a negative finding and notification. Where a finding has been made that the admission was unnecessary, no payment would be made. Thus the denial of payment would be retroactive to the patient's date of admission. The three-day grace period would be removed from existing law.

The AMA previously objected to initial certification of the need for admission to a hospital, and this initial certification requirement was removed from the law. Under this bill the utilization review committee would be required to review the attending physician's judgment as to the need for hospitalization. The present requirement under Medicare calls for the utilization review committee to review extended-stay cases to determine the need for a further stay; thus the committee does not review a great number of cases of hospitalization in each of which the patient has been discharged without an extended stay. Requiring committees to review all cases of hospitalization would impose a tremendous burden on them and would create additional heavy demands on the member physicians' productive man hours.

An adverse finding by a utilization-review committee would subject the patient to individual liability for hospital charges. As a result, this provision could act as a restraint on patients' receiving care, particularly in cases where a physician recognizes the possibility of differing medical judgments concerning the admission.

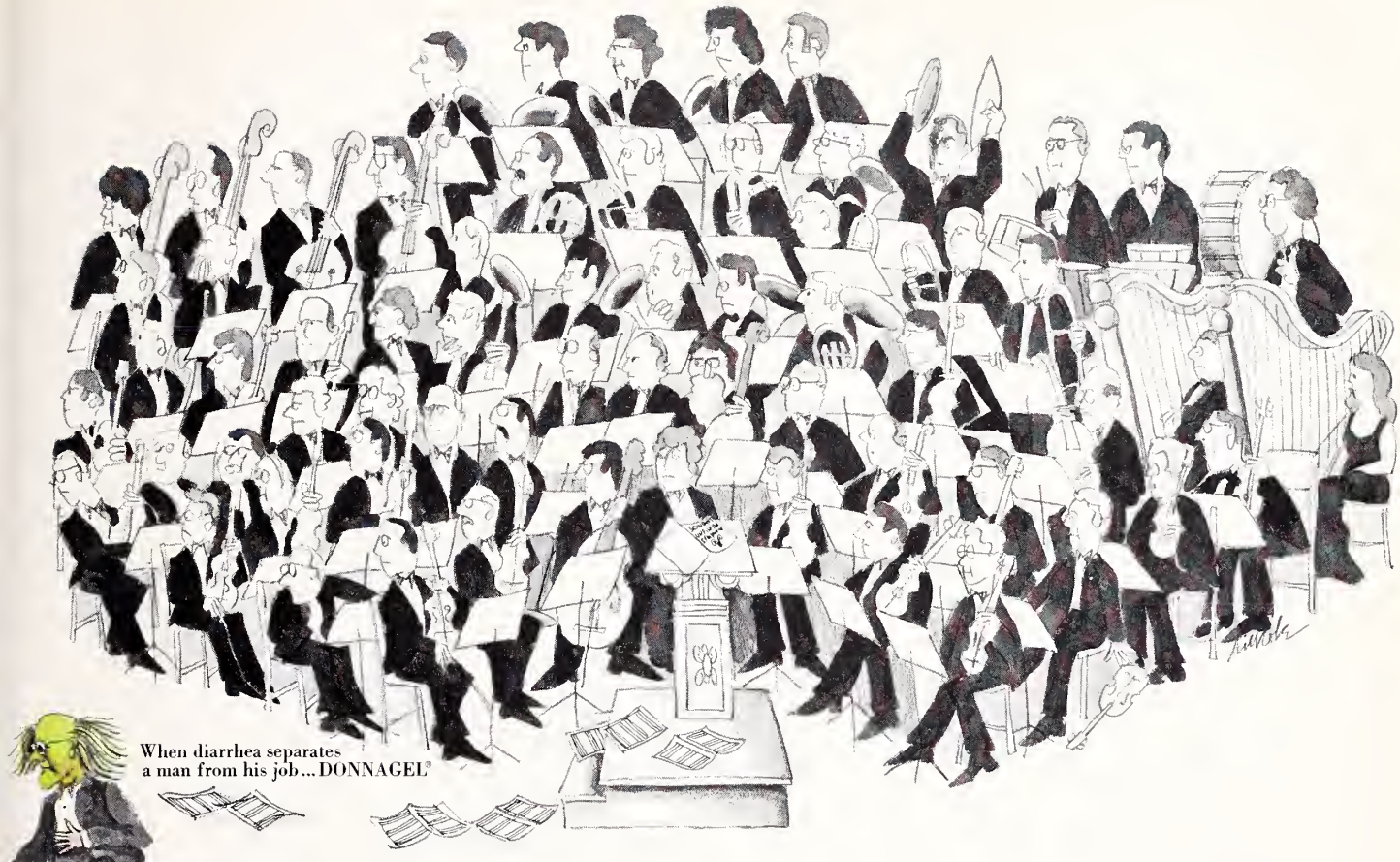
COMING MEETINGS

IN STATE

Dec. 4-5	**Postgraduate Course on Obstetrics and Gynecology**, University of Iowa College of Medicine, Iowa City.
Dec. 5	**Cardiac and Respiratory Disease Conference**, University of Iowa College of Medicine, Iowa City.

CONTINENTAL U. S.

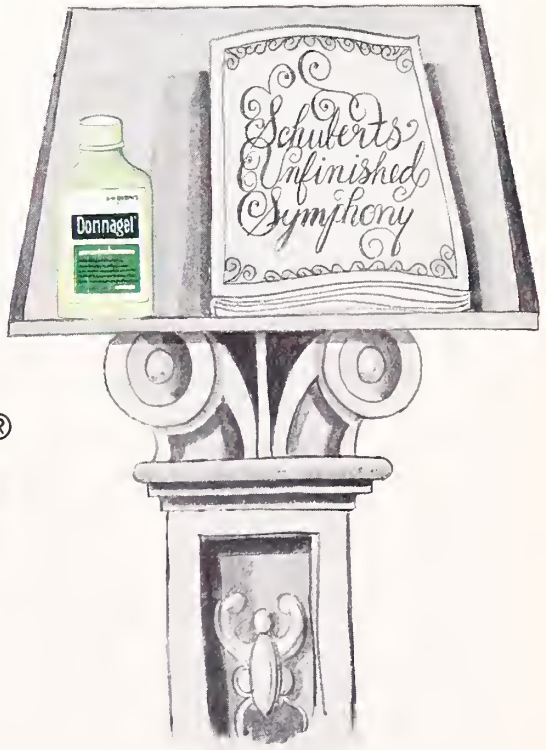
Dec. 3-4	**Postgraduate Course on Respiratory Failure—Acute and Long Term Management**, Cleveland Clinic, 2020 East 93rd Street, Cleveland.
Dec. 6-11	**28th Annual Meeting of American Academy of Dermatology**, Americana Hotel, Bal Harbour, Florida.
Dec. 8-11	**Pulmonary Function in Health and Disease**, Louisiana State University School of Medicine Auditorium, New Orleans.
Dec. 8-12	**Obstetrics and Gynecology Traineeship sponsored by University of Nebraska Medical Center**, Campus of Medical Center, Omaha.
Dec. 10-11	**Postgraduate Course on Concepts in Diagnosis and Management of Diseases of Vitreous, Retina and Choroid**, Cleveland Clinic, 2020 East 93rd Street, Cleveland.
Dec. 10-12	**Postgraduate Course on Gynecology and Obstetrics**, Kansas University Medical Center, Kansas City, Kansas.
Dec. 11-13	**Second Annual Postgraduate Course in Head and Neck Surgery sponsored by University of Nebraska Medical Center**, Omaha Campus, Omaha.
1970	
Jan. 2-4	**Medicine and Law sponsored by American College of Physicians, University of Southern California Institute of Psychiatry and Law**, Los Angeles.
Jan. 2-6	**Postgraduate Course on Function and Dysfunction of Gastrointestinal Tract sponsored by American College of Physicians**, Americana Hotel, Bal Harbour, Florida.
Jan. 14-15	**Postgraduate Course on Selected Problems in General Surgery and Vascular Surgery**, Cleveland Clinic, 2020 East 93rd Street, Cleveland.
Jan. 18-24	**Sixteenth Annual General Practice Review sponsored by University of Colorado School of Medicine**, Denver.
Jan. 22-23	**Postgraduate Course on Computers in Medical Practice sponsored by University of Nebraska Medical Center**, Campus of Medical Center, Omaha.
Jan. 26-28	**International Medical Assembly of Southwest Texas**, Hilton Palacio Del Rio, San Antonio.
Jan. 26-29	**Practical Approach to Selected Clinical Problems sponsored by American College of Physicians**, Ochsner Medical Foundation, New Orleans.
Jan. 29-30	**Second Annual Symposium on Chronic Respiratory Diseases sponsored by University of Nebraska Medical Center**, Omaha Campus, Omaha.



The concert was just underway,
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Scientific Articles

Auto-Allergies of the Central Nervous System: A Review

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Speculations concerning the cause of multiple sclerosis (MS) have been many and varied. Reubi[1] suggested categorizing the causative agents as "extrinsic" or "intrinsic." However only one class of extrinsic agent is currently receiving serious consideration—neurotropic viruses—and only one class of intrinsic factors has been proposed—auto-allergies.

The discovery that allergic encephalomyelitis (AE), which resembles multiple sclerosis, can be produced by inoculating mammals with central nervous system (CNS) tissue combined with Freund's complete adjuvant (FCA)[2] focused attention on an auto-allergic mechanism as the prime suspect in cases of MS. Although that possibility is being challenged, it is becoming more and more evident that AE is, indeed, a faithful model of MS.

If, as seems likely, an immunologic mechanism is the underlying cause of AE and MS, a number of questions must be asked: (A) Is the damage confined to myelin? (B) Is the damage caused by delayed hypersensitivity reactions (i.e., cell-bound antibodies)? (C) Is the damage caused by free serum antibodies? (D) Do *both* free and bound antibodies have shares in causing AE and MS? (E) Are one or more antigenic materials involved, where are they located, what is their chemical nature and what are their normal functions in the nervous system? (F) What makes constituents of the CNS antigenic? and (G) What are "protective" antibodies, what is their chemical nature, what antigens cause their formation and how do they work?

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A. IS THE DAMAGE CONFINED TO MYELIN?

The important histopathologic feature of MS[3] and of AE[4-6] is the disappearance of the myelin sheaths of axons lying within the lesions. The functional consequence of demyelination of CNS axons[7] and of peripheral axons[8-12] appears to be a conduction block. Until recently, the neurologic disturbances (paresis, paralysis, etc.) which are seen in AE and MS were blamed solely on the conduction block caused by myelin degeneration, and the morphologic damage to axons and their terminals was described as minimal or nil. In 1959 Alvord and co-workers[13] observed several instances of paresis and paralysis in guinea pigs that had been inoculated with encephalitogen, though no lesions could be found in the animals' CNS. Bornstein and Crain[14, 15] after conducting electrophysiologic studies on explanted neuron nets with synapses, reported that when AE sera had been applied to such cultures there was a failure of impulse transmission. And Carels and Cerf[16] found that the same phenomenon occurred in isolated spinal cords of frogs. Even more startling was a report by Mihailovic and Jankovic[17] that when sera from rabbits inoculated with tissue from specific regions of cat

brain, were injected into lateral ventricles of normal cats, there were outbursts of electrical activity (as indicated on electroencephalograms), followed by "electrical silence" in the specific regions of cat brain that had furnished the antigen. Thus, not only was the transmission (or conduction) blocking effect of serum antibodies duplicated *in vivo,* but antigenic specificities of different parts of the brain were made evident.

These findings show that demyelination *per se* is not the only cause of the neurologic deficit, and that direct action of a serum factor on synapses might be even more important in causing CNS malfunctions. It might be suggested here that the frequent and sudden exacerbations and remissions characteristic of MS can be more logically attributed to a functional block and its withdrawal than to a rapid demyelination and remyelination.

B. DELAYED HYPERSENSITIVITY (CELL-BOUND ANTIBODIES)

Because the transmission-blocking effect has been found so recently, a discussion of the roles of free and bound antibodies will be confined to the effects they have on myelin. Later we shall speculate concerning possible auto-allergic phenomena that may clarify the transmission-blocking effect.

Most of the evidence emphasizes the role of bound antibodies in the production of AE (and MS?). Studies of the CNS of AE animals, by means of light microscopy[18-21] and electron microscopy[4-6, 22, 23] show that myelin is damaged and removed from axons by mononuclear lymphoid cells which penetrate into the parenchyma of the CNS from the blood vessels, enwrap axons, and damage and remove myelin lamellae. Further observations have tended to support cell-bound antibodies as the agents that damage myelin: (1) Lymphocytes and lymph-node cells from AE animals, when added to cultures of glia cells, cause swelling and lysis of the glia.[24-28] (2) Under appropriate conditions, AE can be transferred from sick animals to healthy ones by means of intravenous[29-31] or intracerebral[32] injections of lymphocytes and lymph-node cells. (3) The migration-inhibition test, when applied to AE,[33] suggests that AE is a delayed hypersensitivity phenomenon. (4) The thymus gland controls cellular immunity, and the intestinal lymph-node system (the bursa of Fabricius in birds) controls the cells that produce immunoglobulins. Thymectomy but not bursectomy has reduced the severity of induced AE in chickens[34, 35] thus suggesting that AE is a matter of cellular immunity.

C. FREE SERUM ANTIBODIES

So much evidence supports the theory that there are free myelinolytic antibodies in the sera and cerebrospinal fluid of AE animals and MS patients that one cannot unreservedly espouse the bound-antibody concept to the exclusion of the free-antibody hypothesis. The existence of these antibodies has been proved by their swelling and lytic action on explanted neural tissue.[36-41] The nature of the bound antibody is still unknown, but there is evidence that serum myelinolytic antibodies are complement-dependent $IgGy_2$.[36] The production of demyelinative lesions in the CNS of animals that have had AE and MS sera injected into their brain ventricles[42] constitutes additional evidence for the important role of serum antibodies in causing AE. Those who hold to the bound-antibody concept admit that serum antibodies play a role in AE, but only as free antibodies involved in protecting against AE.

Thus far, it must be pointed out, only serum antibodies are known to play a part in causing transmission failure. If transmission failure occurs when lymphocytes or lymph-node cells from AE animals are applied to neural cultures, it has not been reported.

Although AE and MS sera, applied to cultured neural nets with synapses, cause transmission failure, they do not cause conduction failure, according to Bornstein and Crain[14] and Carels and Cerf.[16] However, immersion in saline containing immunoglobulin has produced conduction failure in isolated lobster axons.[43] Such axons also show $K+$ loss, suggesting that immunoglobulin may have damaged the $K+$ retrieval system and thus has abolished axonal conduction. There is other evidence that antibodies interfere with the active transport of $K+$ (retrieval) by the axons. For example Merrill and Hanau[44] report that rat anti-frog skin antibodies, when applied to frog skin *in vitro,* inactivate the active transport mechanism for $K+$. Also the reports of three independent groups of investigators[45-47] have shown that brains of AE animals show a loss of $K+$ (and a gain of $Na+$).

At this point we wish to suggest a way of resolving the impasse between bound and free antibodies as causative agents for AE and MS. We have seen that the lymphocytes and lymph-node cells from AE animals, and the sera from AE animals and MS patients, appear to have suffered the same effects—i.e., myelin and glia destruction *in vitro*, and transfer of AE to healthy animals. Since most authorities agree that AE is caused by bound antibodies rather than by free antibodies, it is difficult to explain the transfer to AE by sera and the *in vitro* lytic action of AE sera on neural cells. Taking a clue from work done mainly on homograft rejection[48, 49] on transfer of delayed cutaneous hypersensitivity[50] and on allergic orchitis,[51] one can speculate that free and bound antibodies may both play parts—i.e., they may interact synergistically to cause AE.

So that the ensuing discussion will be clear, we should pause at this point to ask a series of questions: Are one or more antigenic substances involved? Where are they located? What is their chemical nature? What is their normal function in the neuron?

Many attempts have been made to isolate and chemically characterize the smallest component of myelin that still retains its encephalitogenic potency.[52-55] A basic peptide with a molecular weight of about 3,000 has been extracted from myelin. It is encephalitogenic in very small amounts. This peptide is said to exist only—or mainly—in the inner protein monolayer of the unit membrane constituting the myelin "cell" membrane.[56] The normal function of this peptide is unknown, but suggestions have been made that it may be a mobile carrier for the active transport of Na+ and K+ during excitation,[55, 57] and that it may be bound to gangliosides which are confined to synapses[58, 59] and which also are thought to be concerned with ion movements during the transmission of nerve impulses.[60-62]

Another protein—"S-100" acidic—has been extracted from both gray and white matter in all areas of mammalian brain, from the brains of birds, fish and reptiles, and from the sciatic, tibial and vagus nerves of mammals. Its appearance during embryogenesis does not parallel myelination,[63] and is probably of neuronal origin,[64-67] though Hydén and McEwen suggest a glial origin.[68] There are numerous acidic proteins in the CNS that might be constituents of the "S-100" protein—aminoacid transmitter substances, electrogenic protein, neurotubule protein. Or "S-100" protein may be a single protein acting in all three capacities.

"Transmitters": The aminoacid composition of "S-100" has been worked out. Aminoacids (glutamate, aspartate) have been suggested as constituting specific excitatory transmitters in many regions of the CNS.[69-73]

"Electrogenic" proteins: These are thought to be acidic proteins, the molecules of which change shape with ionic shifts or in response to forces at work in an electrical field.[74, 75] They are said to lie in or constitute the inner protein monolayer of the unit membrane of the axon, and of the post-synaptic membranes of neuron somas and dendrites. Electrogenic protein molecules have a shape that normally allows them to block membrane pores so that ions cannot pass through. On excitation these molecules "round up," and pores open up for Na+ influx and K+ efflux (excitation). It has been shown that transmitter aminoacids alter the shape of molecular enzyme configurations *in vitro*.[76]

"Neurotubules." It has been suggested that transmitters are produced in neuron somas and are transported to axon terminals via neurotubules in the axoplasm, and that they are stored there as "synaptic vesicles."[77, 78] A striking demonstration of this is Kerkut's work,[79, 80] which showed that C^{14}-labelled glutamate, placed on snail brains or frog spinal cords, travels down the nerves and can be detected in snail or frog muscle. The rate of travel is increased by stimulation of the brain or spinal cord, and is decreased by xylocaine and by cold. The neurotubules contain acidic aminoacids.[81]

Antibodies against transmitters. Fractions of rabbit cortical tissue containing axon endings were inoculated into experimental animals, and sera from those animals, in the presence of complement, exerted a lytic action upon cortical axon terminals *in vitro*. Synaptic vesicles clumped and later disappeared.[82, 83] Some axon terminals burst and liberated synaptic (transmitter) vesicles. This may account for the initial, rapid electrical spike activity which Mihailovic and Jankovic found occurring *in vivo*. Bornstein and Crain found the same thing *in vitro*. DeRobertis reported that antibodies to "S-100" protein disrupt nerve endings *in vitro*,

and destroy electrophysiologic properties of molluscan neurons and cause cytolysis *in vivo*.[82]

Antibodies against electrogenic protein. Antibodies may inactivate this protein, producing an absence of ion fluxes and no excitation, as suggested by Schmitt and Davison.[75]

Antibodies against neurotubules. This possibility has not been investigated, but examination is feasible since neurotubules have been isolated and analyzed.[81]

D. WHAT MAKES THE CNS CONSTITUENTS ANTIGENIC?

In general, an autoallergic response means that an organism comes to regard its own tissues and cells as "foreign" or "non-self," and it marshals its immunologic resources to dispose of those elements. What happens to tissues and cells to alter them so much that they become "unrecognizable"? Viruses, bacterial toxins, physical distortion or tissue and cell damage may bring to an end the body's immunologic tolerance, and the reticulo-endothelial system then elaborates antibodies against them.[84-94] Once these autoantibodies have been formed, if they are to damage target tissues or cells, the target cells themselves perhaps must also be damaged, so that antibodies can act upon their exposed antigenic-determinant sites.[95-99]

Thomas injects a note of caution by suggesting that it may be incorrect to assume that autoantibodies are the *cause* of auto-allergic diseases.[100-101] They may, on the contrary, be the *result* of the disease. In other words, some extrinsic agent—a virus or a toxin—may cause the damage that we interpret as an auto-allergic lesion, and antibodies are formed only to clear away the debris and allow reparative processes to begin. If this is true, it must be shown that lesions caused by a virus or a toxin are identical with the lesion that actually occurs.

Neurotropic viruses are receiving increased attention as agents which might unmask antigenic sites on previously inocuous cells and tissues, and render them antigenic. Pette suggests that viruses need not be neurotropic to trigger such reactions.[102] Myxoviruses growing within the host's cells—not necessarily neural cells—may become coated with the components of the host cell's membrane, may leave the host cell, and may evoke formation of antibodies that cross-react with myelin and glia. Lamoureux and Borduas suggest that antibodies against virus antigens may cross-react with myelin antigen in a fashion similar to that in which antistreptococcus antibody reactions with myocardial cell antigens to cause rheumatic heart disease.[103]

Concerning neurotropic viruses, Lumsden[104] and Burnet[105] suggest the possibility that combinations of virus and CNS tissue may distort or modify neural tissue, make it antigenic, and evoke antibody formation. Two neurotropic viruses of the type that might be involved in the production of MS are scrapie[106] and visna.[107, 108] Other "slow" neurotropic viruses which in the future may become more prominent in this connection have been reviewed by Brody *et al.*,[109] by Gajdusek[110] and by Gajdusek *et al.*[111]

In 1946 a published report claimed the isolation of two strains of viruses from cases diagnosed as MS.[112] A later report, in 1956, claimed the isolation of five additional and similar strains. Vaccines prepared from those viruses were used in clinical trials against MS, but the results were equivocal, and Dick *et al.* condemned their use as ineffective and dangerous.[113] A summary of this subject has been presented by Lumsden.[104] It is suggested, however, that this line of inquiry should not be abandoned.

E. "PROTECTIVE" ANTIBODIES

An extensive discussion of "protective" antibodies will not be undertaken here. Their existence has been suspected for some time, following observations that after inoculations of animals with whole brain plus FCA there is an inverse relationship between the amount of these antibodies in the animal's serum and the severity of its AE symptoms—i.e., a low titer in a severe case of AE, and a high titer in a mild case or in an animal that does not have the disease.[84, 114-116] Withdrawing sera from animals that had recovered and injecting it into healthy animals before inoculating them prevented them from getting AE.[117] Hence the term "protective." Paterson showed that this antibody is a complement-dependent 19S IgM in animals inoculated with whole CNS plus FCA.[116] But Nakao and Roboz-Einstein found that inoculation of animals with the basic peptide plus FCA resulted in AE and produced no C-F IgM in the animals' sera. Yet when these sera were injected into animals before inoculation with encephalitogen, they still were protected against AE. This may mean that a second

protective antibody is present—a non-C-F $IgGy_1$.[120, 121, 103] Thus the IgM protective antibody is formed against an antigen that is different from the basic peptide. What that antigen is, no one knows.

It is not even completely agreed that "protective" antibodies are free antibodies. Falk *et al.*[122] and Lisak and Kies[123] suggest that *both* induction and suppression of AE are mediated by bound antibodies.

Examples of protective antibodies are uncommon. Besides those in the sera of animals inoculated with brain tissue or basic peptide, there have been reports of another autoantibody that preserves the integrity of cells or organelles. This C-F antibody increases the stability of the cell lysosomes and prevents their lysis by means of vitamin A, for example, and prevents lysis of human polymorphonuclear neutrophils by lysosomes of rabbit leukocytes that are ingested by the polymorphs.[101, 124]

"Protective" antibodies, although a topic of great clinical importance, is one of the more obscure aspects of the whole AE problem. A consistent picture awaits further investigation.

SUMMARY REMARKS

Multiple sclerosis appears to be an auto-allergic disease. The most convincing evidence for this conclusion is that it can be faithfully imitated by allergic encephalomyelitis (AE) induced in experimental animals by means of injections of CNS tissue plus FCA, or basic peptide extracted from myelin plus FCA. The major histopathologic damage seen in both diseases is the destruction of myelin sheaths. That destruction, in turn, can cause a slowing or blocking of impulse-conduction in the axons. Humoral antibodies are formed against neural tissue, and these can produce failure of impulse-transmission, and under experimental conditions can cause a reduction or an abolition of impulse-conduction.

Most of the evidence indicates that bound antibodies cause myelin damage, but it has not been shown that bound antibodies also cause transmission failure. Humoral antibodies from AE animals and MS patients cause both demyelination and transmission failure *in vitro* and *in vivo*. These conflicting findings have yet to be reconciled. It is suggested that free and bound antibodies may act synergistically to cause AE.

The antigens that elicit these immunologic responses are thought to be: (a) a basic peptide extracted from myelin; and (b) an acidic protein ("S-100") extracted from neurons. Inoculation with basic peptide causes demyelination. Antibodies to "S-100" protein disrupt nerve endings *in vitro* and destroy electrophysiologic properties of neurons *in vivo*.

Several neural components contain acidic proteins that may be antigenic: (a) aminoacid transmitters; (b) "electrogenic" proteins of axons and of postsynaptic membranes; (c) "neurotubules" of the axoplasm involved in the transport of transmitters from neuron somas to axon terminals. Antibodies against these proteins may cause conduction/transmission failure in AE and MS. "S-100" protein shows unusually close serologic relationships, and thus it is uncertain whether it represents a single antigen in all three of the above, or whether there are three separate but closely related antigenic substances.

It has been suggested that MS may occur as a result of the interaction of extrinsic and intrinsic factors. The intrinsic factor in both AE and MS may be an immunologic mechanism. The extrinsic factor in AE may be the exposure of antigenic sites of the inoculated tissue as a result of preparatory freezing and thawing, homogenization, etc., or as a result of extraction of the basic protein. In MS the extrinsic factor may be the unmasking of antigenic sites in the CNS by the action of viruses—either myxoviruses or, more probably, neurotropic viruses.

"Protective" antibodies are (humoral?) antibodies that counteract the cytotoxic antibodies. They may be very important in the treatment or prevention of AE and MS, but information concerning the antigens that produce them, concerning their chemical nature and concerning their mode of action are so contradictory that no coherent hypothesis is possible.

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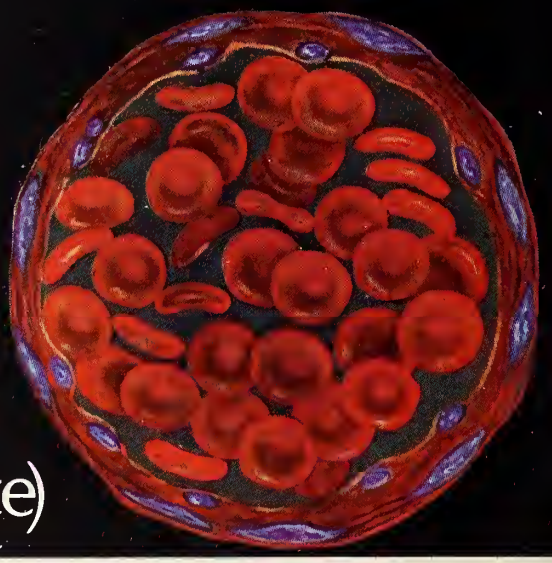
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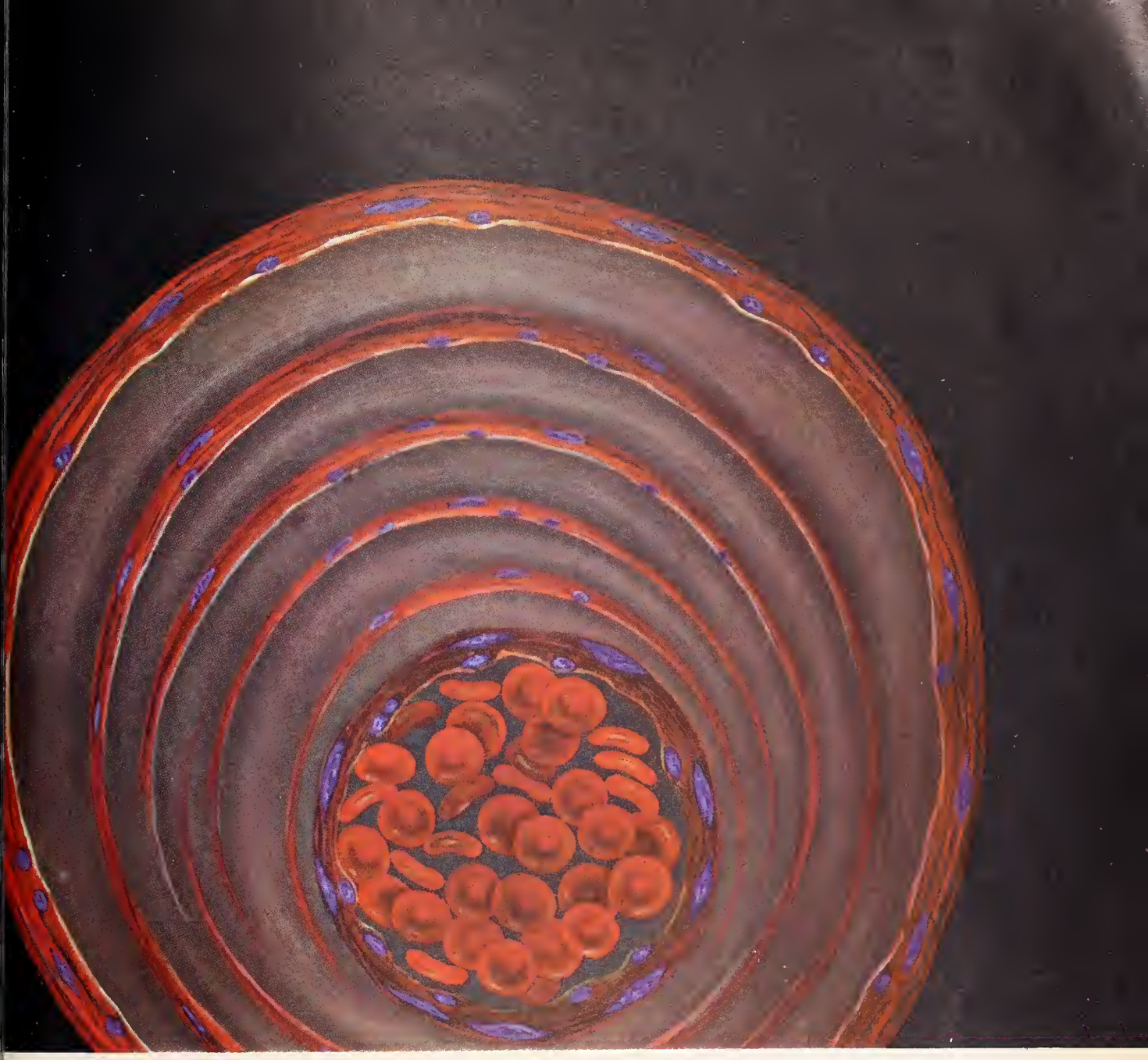
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Inorganic Phosphate Therapy of Hypercalcemia

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Iowa City

THE FINDING OF HYPERCALCEMIA most frequently suggests the diagnosis of hyperparathyroidism, but it often accompanies other and commoner clinical entities such as prolonged bed rest, multiple myeloma, carcinoma of the breast and lung, hyperthyroidism and leukemia, as well as less common diseases such as Addison's, the milk alkali-syndrome, sarcoidosis, hypervitaminosis D and the hypercalcemia of infancy. Detecting hypercalcemia in these diseases is of more than incidental importance, for the associated signs and symptoms of lethargy, delirium, vomiting, anorexia and constipation can confuse the overall clinical picture and can be as devastating as any that are seen in the other extreme of disordered calcium metabolism, hypocalcemic tetany.

A variety of agents and methods have been used to treat the hypercalcemia associated with these diseases. Most often used have been corticosteroids and saline and sulfate infusions, and less commonly the administration of chelating agents such as ethylene-diaminetetra-acetate (EDTA), and of growth hormone, and peritoneal and hemodialysis. Inorganic phosphates, administered either orally or intravenously, have attracted increasing attention over the past 10 years, as an effective therapy for hypercalcemia.

The ability of phosphate salts to lower serum calcium levels in animals was demonstrated more than 50 years ago by Binger,[1] and later by Salvesen.[2] In 1930 Bulger showed that hypophosphates effectively lowered serum calcium in a few patients with hyperparathyroidism and multiple myeloma,[3] but the use of phosphates fell into disfavor because of the fear of their producing extra-skeletal calcifications. Moreover, there had been reports of deaths associated with intravenous phosphate therapy.[4] Recent studies of the use of phosphates have been less unfavorable, however,[5, 6, 7] and we recommend another look at oral-phosphate therapy in hypercalcemia. We present a case study to support our point of view.

CASE REPORT

B. D., a 58-year-old housewife, was admitted to the University of Iowa Hospitals on July 6, 1968, with the complaints of weight loss, right upper quadrant pain of six months' duration, and left hip pain of two weeks' duration. Early findings included anemia, hepatomegaly, a "cold" thyroid nodule, cholelithiasis and osteolytic lesions of L-4 and the left ischium. Subsequent search for a primary tumor—a search that included upper and lower gastrointestinal series, an intravenous pyelogram, and bone scans for preferential strontium and I^{131}-up-

Dr. Christie is a resident in internal medicine and Dr. Azer a fellow in nephrology at the U. of I. College of Medicine. They made this presentation at the Annual Residents' Day Program, October 12, 1968, and also at the fall meeting of the Iowa Clinical Medical Society, December 7, 1968, in Iowa City.

take—was unrewarding. Adenocarcinoma was identified in tissue obtained by means of a closed liver biopsy.

The patient's serum calcium and phosphorus values in early July were 11.5 and 2.7 mg. per cent, respectively. By August 8, her serum calcium level had risen to 14.8 mg. per cent. There was a concomitant deterioration of her mental status, with the development of delirium and obtundation.

She was then given a six-day course of oral sodium and potassium hypophosphate therapy, consisting of 0.1 M phosphorus daily, in divided doses. (The solution provided by the Pharmacy Service contained approximately 0.09 M of Na_2HPO_4 and approximately 0.01 M of K_2HPO_4, to give a total phosphorus concentration of 0.1 M or about 3.1 Gm. of phosphorus. That amount of medication can be given orally in four divided doses in a flavored vehicle, or it can be administered intravenously each day in one liter of 5 per cent glucose in water.) Within 36 hours the patient's serum calcium had fallen to 10.4 mg. per cent, and her serum phosphorus was 3.4 mg. per cent. She was more alert and less delirious.

Nine days after the discontinuance of phosphate therapy, however, her serum calcium had risen to 16 mg. per cent, and once again there was deterioration of her mental status. Oral phosphate therapy was again instituted, and within 72 hours her calcium and phosphorus values were 10.2 and 4.9 mg. per cent, respectively. During both courses of treatment, the blood and urinary calcium and phosphorus values, the blood urea nitrogen and serum creatinine, and the creatinine clearance were recorded. Fecal calcium and phosphorus were measured for four-day periods before and during the second course of therapy. Aside from supportive analgesics, the patient received no concomitant treatment. During the second course of therapy, she was initially obtunded enough to require intravenous hydration and mannitol infusions to maintain urinary output.

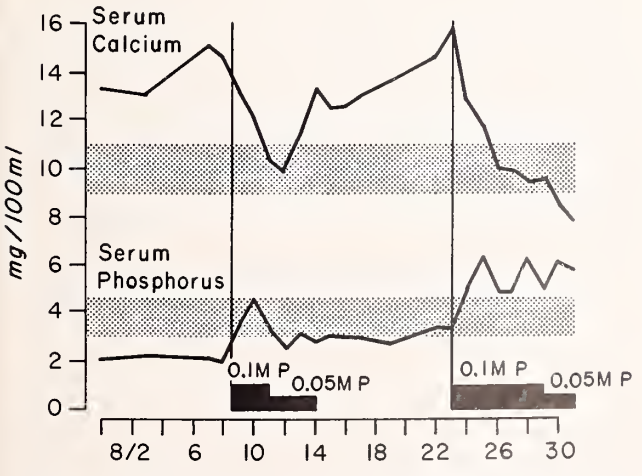


Figure 1. Serum calcium and phosphorus levels during the month of August. The shaded areas represent the normal ranges of values. The vertical lines mark the beginnings of the courses of therapy, indicated by solid horizontal bars.

The patient died on September 1, 1968. Postmortem examination revealed adenocarcinoma of the thyroid, with similar tumor involvement of the lungs, adrenals, the L-4 vertebra, the periaortic lymph nodes and the liver. Special attention was given to the search for microscopic mineral depositions, but only scattered renal tubular deposits and single foci of mannitol infusions to maintain adequate urinary output.

DISCUSSION

The serum calcium and phosphorus values in the patient are graphed in Figure 1. Each course of therapy began with the 0.1 M phosphorus daily dosage, which was halved as soon as calcium levels fell well within normal range. The prompt calcium lowering that occurred within 24 to 36 hours after the start of treatment was accompanied by an increase in serum phosphorus levels.

There was no change in the patient's diet during treatment, and the excessive serum calcium clearly disappeared. Thus it was worthwhile to monitor other effects that might suggest the mechanism of action of phosphate therapy.

Figure 2 charts the several urinary calcium and phosphorus determinations recorded before and during each course of therapy. Urinary calcium clearly fell from abnormally high levels (the normal daily excretion being less than 200 mg.) to amounts too slight to measure. This virtual absence of urinary calcium was also noted during the second course of therapy. Urinary phosphorus values, although generally low, did rise during each treatment period. Fecal calcium and phosphorus determinations on a four-day collection taken before and during the second treatment demonstrated that there was a marked drop in fecal excretion of both these elements during treatment. As

others have shown,[6, 8] the kidneys and the gastrointestinal tract are not pathways for calcium loss that are sufficient to account for the effect of phosphate therapy.

The major objection which some authors have made to the use of phosphates in treating hypercalcemia has been the fear—either fanciful or justified—of decreasing renal function by precipitating calcium-phosphate salts into the kidneys.[8, 9] Figure 3 shows creatinine clearances before and during therapy in the above-described case. In both instances the clearances during treatment improved over the pre-treatment values. The sharp drop in clearance values following the first course of therapy coincided with diminished fluid intake and urinary output. The slight increase in clearance during the second course came after the use of intravenous fluids and mannitol in an effort to assure adequate urinary output. From Figure 4 one sees that the BUN and serum creatinine levels also fell when treatment had begun. These rises in creatinine clearance and decreases in BUN and serum creatinine speak for an improvement in, rather than a diminution of, renal function, and they parallel similar favorable results reported by others.[5, 7] Finally, microscopic examination of autopsy specimens in this case showed no such catastrophic glomerular calcifications and heavy myocardial and alveolar mineral deposits as have been reported in the literature.[9] Only scattered renal tubular deposits were found. Moreover, other reports indicate a similar lack of associated renal and other extra-skeletal calcifications.[5, 7] Instead, they indict long-standing hypercalcemia itself as the principal cause of such lesions. This conclusion is not surprising when one recalls that it was the devastating extra-skeletal calcifications—especially renal calculi—that attracted attention long before serum calcium levels were measured and the disease of hyperparathyroidism became known.

We feel that oral phosphate therapy can be used almost exclusively, usually in daily doses of 1.5 to 3 Gm. (0.05 to 0.1 M) of phosphorus, according to the clinical need. The intravenous route is necessary only if a rapid decrease in serum calcium is called for, as in hyperparathyroid crisis.[10] The only troublesome side effect of oral phosphates is diarrhea, and it

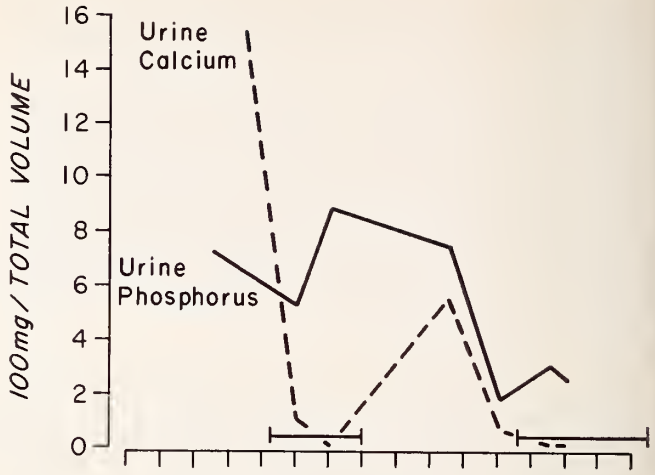


Figure 2. The 24-hour urinary calcium and phosphorus excretions. Horizontal brackets mark the periods of oral phosphate therapy.

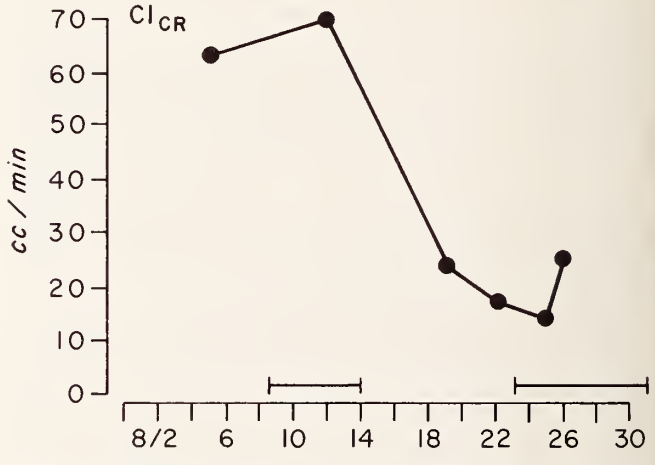


Figure 3. Creatinine clearances before and during both courses of phosphate therapy. The periods of therapy are indicated by brackets along the abscissa.

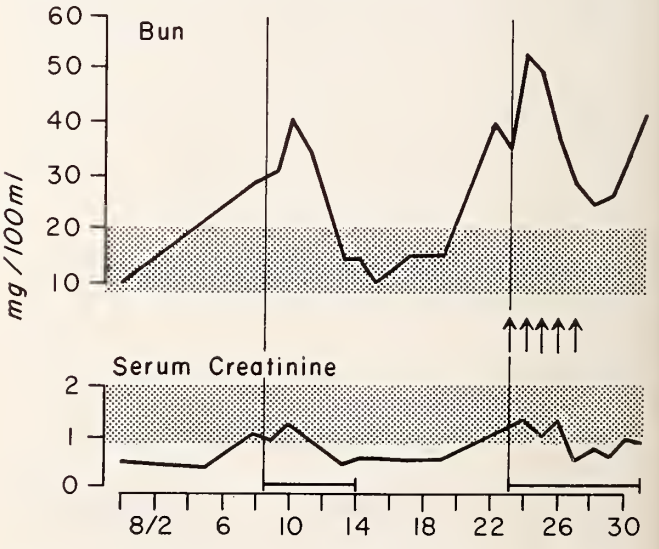


Figure 4. The blood urea nitrogen and serum creatinine values during August. The treatment periods are indicated by horizontal brackets. The arrows mark mannitol infusions.

can be controlled by means of anticholinergic agents or by the administration of smaller, divided doses of the phosphates. The duration of each course of therapy in the above-described case was approximately one week, but phosphates have been used for much longer treatment periods without untoward effects.

Despite considerable work and observation on the calcium-lowering effect of phosphates, the exact mechanism of their effect is not clear. Most evidence, including the laboratory and postmortem findings in the case presented here, however, support the conclusions of Hebert *et al.*[11] that the fall in serum calcium following phosphate infusion is directly proportional to the degree by which the solubility of the newly formed calcium-phosphate salt is exceeded. Moreover, Hebert *et al.* noted that there was no increase in calcium excretion to account for the fall in serum calcium during phosphate infusion, and they concluded that the formation and precipitation of calcium-phosphate salts is the mechanism by which phosphates lower the serum calcium. The speculation is that although this $CaHPO_4$ salt may temporarily be sequestered by soft tissue such as the spleen and liver, it ultimately reaches bone. The fact that most reports show no increase in extraskeletal mineralization following phosphate therapy supports this theory. Radioisotope and histologic studies by Pechet *et al.* indicate that the final hypocalcemic effect results from stimulation of bone formation and mineralization.[12]

SUMMARY

We conclude that inorganic phosphate therapy is an effective and safe method of palliating the effects of the hypercalcemia which occurs in both endocrine and malignant disorders. We recommend the use of oral phosphates principally, with recourse to intravenous administration only in emergencies. Renal function during treatment and a possible mechanism of action have also been discussed.

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Thumbnail History of Alcoholism

One of the parts of an address by Dr. James C. N. Brown, director of the U. of I. Alcoholism Treatment Unit, at Oakdale, during the 17th Annual Pharmacy Seminar in Iowa City October 31 consisted of highlights in the history of the malady. He said that alcoholism as we know it was first recognized when distilled spirits first became common, in the 17th and 18th centures, and during the industrial revolution of the 19th century. "Before alcohol intoxication interfered with productivity quotas, governments enthusiastically fostered development of the profitable liquor industry," Dr. Brown explained. "Although the physical and mental ravages of alcohol were apparent for many years, it was not until the efficiency of work output was affected that legislation was enacted against its excessive use."

Beverages such as mead, cider, beer and wine had been known since the early stone ages, according to Dr. Brown. Distillation for the production of more concentrated alcoholic beverages was described as early as 800 A.D., and was introduced to Western Europe during the 13th century.

He pointed out some interesting vagaries regarding the diagnosis and the assigning of blame for alcoholism. During prohibition, he said, alcoholism was rarely diagnosed "because alcoholic beverages had been abolished," and a similar thing happened in Russia following the 1917 Revolution because "the capitalist slave-masters had been overthrown and there was no more reason for workers to get drunk and become alcoholics."

Stilphostrol Therapy in 100 Cases of Prostatic Carcinoma

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Iowa City

DIETHYLSTILBESTROL DIPHOSPHATE (Stilphostrol —Dohme Laboratories Div. of Miles Laboratories, Inc.) has been found to be a useful drug for the treatment of advanced adenocarcinoma of the prostate. Its use intravenously has been helpful in providing palliation—frequently when other modalities of treatment have failed. [1-7]

Intravenous Stilphostrol has been used frequently in the Department of Urology at the University of Iowa. The following is an analysis of the last 100 patients treated with intravenous Stilphostrol. It was used chiefly, but not exclusively, in attempts at palliating far-advanced prostatic carcinoma, usually for symptomatic metastatic disease. The most frequent indication for its use was pain from bony metastases.

METHOD OF ADMINISTRATION

The following was the usual method of administration and dosage. One gram of Stilphostrol was given by intravenous infusion in 250-300 cc. of 5 per cent dextrose in water over a period of from one to three hours. The infusion was given once or twice daily. Frequently a mild sedative or an antiemetic drug was given 30 minutes prior to the infusion to combat the nausea commonly associated with the infusion. The total dosage of the drug varied with the reason for its use, with the degree and rate of response achieved, and with the tolerance of the patient. The 100 patients in the study group received total doses ranging from 3 to 50 Gm. during a single course of treatments.

Dr. Rohlf is a resident and Dr. Flocks is a professor in the Department of Urology at the U. of I. College of Medicine. The study reported here was supported in part by American Cancer Society Fellowship #2215.

FINDINGS

1. *Parameters used to judge the response.* As noted in Table 3, the majority of patients who experienced favorable responses had diminution of pain—frequently quite a dramatic one. Other favorable responses were:

a. Decreased serum phosphatase activity
b. Improved voiding pattern
c. Decreased size of the local lesion
d. Improved renal function in a few cases.

It will be noted that some of the patients had improvement in more that one of the parameters.

2. *Response to Stilphostrol.* Infusions of Stilphostrol were administered to 91 patients who were symptomatic either from metastatic disease or from large local lesions. Fifty-nine

TABLE I

RESPONSE TO STILPHOSTROL IN PATIENTS WITH PROSTATIC CARCINOMA

Degree of Reponse	Number of Patients	Ages 40-49	50-59	60-69	Over 70
A. Symptomatic Patients					
"Excellent"	30	1	8	11	10
"Good"	29	1	8	10	10
"Minimal"	10	0	3	6	1
"No objective response"	22	0	7	7	8
Totals	91	2	26	34	29
B. Surgical Adjunct					
"Indefinite response"	9	1	5	2	1
Totals	100	3	31	36	30

TABLE 2

RESPONSES TO TREATMENT IN RELATION TO PREVIOUS THERAPY AND TO PHOSPHATASE ACTIVITY

Degree of Response	None	Previous Treatment: Orchiectomy	Estrogen Only	Orch. & Estrogen	Acid & Alkaline Phosphatases: Normal	Elevated
"Excellent"	5	3	4	18	11	19
"Good"	12	0	6	11	14	15
"Minimal"	5	1	0	4	4	6
"None"	10	4	0	8	15	7
"Indefinite"*	7	0	1	1	9	0

* When Stilphostrol was used as a surgical adjunct.

patients (64.8 per cent) experienced responses that were considered "good" to "excellent," based on the degree and rate of the response. Several patients were given repeated courses, and favorable responses were noted each time. An additional 10 patients had objective responses classified as "minimal." Thus 69 of 91 (75 per cent) of the symptomatic patients had favorable responses of differing sorts to the infusions. As noted in Table 1, there were no objective responses in 22 patients. The age of the patient did not appear to influence the response.

As noted in Table 2, the type of previous treatment did not appear to influence the response. It should be observed that many patients who had been treated with estrogens (either stilbestrol or TACE) had a favorable response to Stilphostrol. Many patients who had undergone orchiectomy also had a favorable response.

Of the symptomatic patients who had elevated serum phosphatase activity, 40 of 47 (85 per cent) responded to treatment with Stilphostrol. A significant number—29 of 44 (66 per cent)—with normal phosphatase activity also responded to Stilphostrol treatment. It is apparent that patients with elevated serum phosphatase have a greater chance for improvement with Stilphostrol, but a trial is indicated also in patients with normal serum phosphatase.

An additional nine asymptomatic patients recieved 2 to 10 Gm. of Stilphostrol as an adjunct to surgery, and therefore are listed as having had "indefinite" responses. These patients thus far have had very favorable cour-

TABLE 3

EVIDENCE OF PALLIATION FOLLOWING USE OF STILPHOSTROL IN 95 PROSTATIC CARCINOMA PATIENTS

Parameter of Improvement	Number of Patients	Treatment Repeated x1	x2
Diminished pain	50	6	4
Decreased serum phosphatase activity	16	2	-
Improved voiding	14	-	-
Improved renal function	4	-	-
Decreased size local lesion	11	-	-

TABLE 4

SIDE EFFECTS OF INTRAVENOUS STILPHOSTROL IN PROSTATIC CARCINOMA PATIENTS

Problems Experienced	Number of Patients
Nausea and/or vomiting, controlled; Rx continued	87
Nausea and vomiting; patient refused further treatment	3
Severe perineal discomfort	22
None listed	10

TABLE 5

COMPLICATIONS OF STILPHOSTROL THERAPY IN PROSTATIC CARCINOMA PATIENTS

Complications	Number of Patients
None	97
Phlebitis	1
Peripheral edema	2

ses, but the role of Stilphostrol in their cases cannot be readily ascertained.

3. *Problems.* Some degree of nausea was found almost universally, and occasional vomiting as well. These were usually well controlled by premedication, and only three patients refused to continue the treatment because of the intensity of their nausea and vomiting. Some degree of perineal discomfort was frequently present, to, but it was listed as "severe" by only 22 patients. The severity of all of the above problems was in part controllable by adjustments in the rate of infusion. Ten patients voiced no complaints during the infusions.

4. *Complications.* The 100 patients included in this study recieved a total of 112 courses of Stilphostrol infusions. No serious complications attributable to Stilphostrol were found. One patient developed a thrombophlebitis, and two patients developed peripheral edema during the course of therapy.

DISCUSSION

In this series a significant percentage of patients who were symptomatic from advanced carcinoma of the prostate received palliation following infusions of Stilphostrol. It is unclear whether the actual course of the disease was significantly altered, but relief of symptoms was frequently achieved.

Seven of the 22 persons who attained no objective response had markedly anaplastic carcinoma of the prostate. Four of the 29 patients who had "good" responses to Stilphostrol also had anaplastic lesions. Thus it appears that an anaplastic tumor is less likely to respond, but that a trial is worthwhile in such cases.

The problems associated with the use of intravenous infusions of diethylstilbestrol diphosphate (Stilphostrol) are usually minor and can be managed without difficulty. Complications are unusual, and in this series they were of a minor nature.

CONCLUSION

A review of the records of the last 100 patients to receive infusions of intravenous Stilphostrol in the Department of Urology at the University of Iowa College of Medicine revealed favorable responses in 75 per cent of the symptomatic patients.

Diethylstilbestrol diphosphate (Stilphostrol) is a safe, useful drug for palliation of advanced prostatic carinoma.

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Correction

In the article "Carbon Monoxide Intoxication and Poisoning," by Earl F. Rose, M.D., which appeared in the October, 1969, issue of this JOURNAL, there was an error in the top line of the left-hand column on page 914. It should have read: "concentrations below 0.01 per cent (100 ppm)."

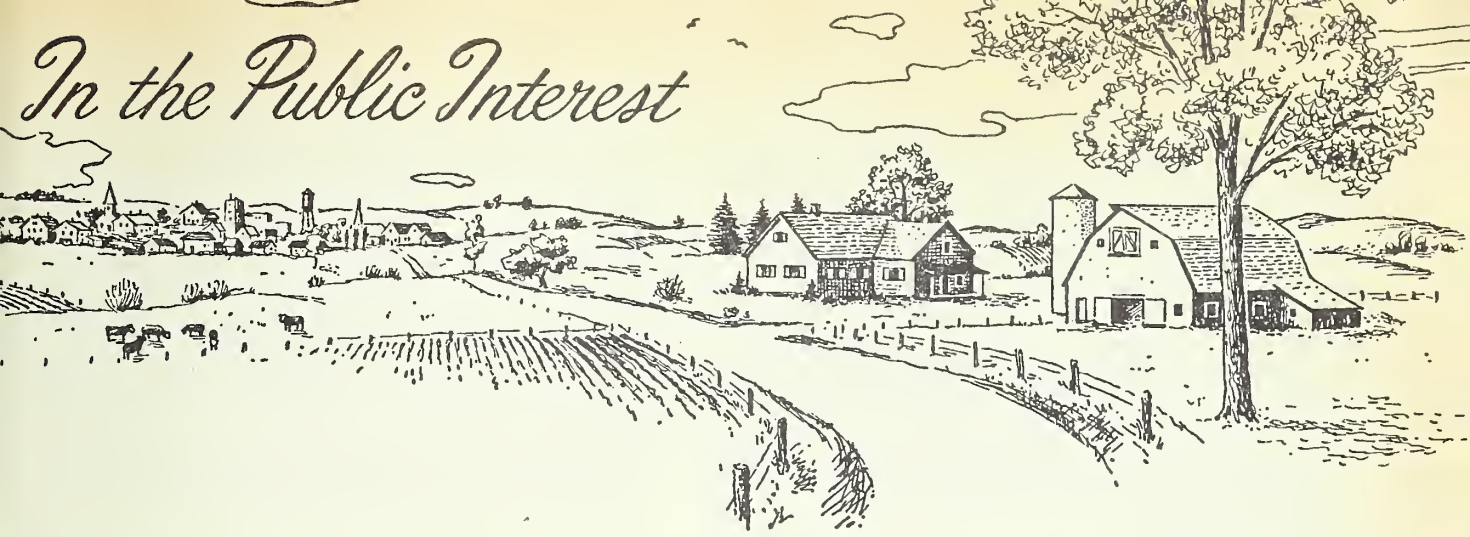
Professional Films and Projector Can Be Borrowed From Cancer Society

Through its Professional Information Committee, the American Cancer Society's Iowa Division, Inc., offers several new films and projectors with which to show them at county medical society and hospital medical staff meetings. The projectors are of the table-top type and they utilize cartridges. The carrying case for the projector has a "built-in" screen for use in showings to very small audiences.

The list of films, with summaries, viewing times, etc., can be obtained from the Division's office, 117½ North Federal Avenue, Mason City 50401 (phone 515-423-0712).

When the loan of a film has been arranged, either a staff person or a volunteer will deliver the projector and film to the borrower two days prior to the showing, and will pick them up afterward.

In the Public Interest



The 1970 Session of the General Assembly of Iowa will consider

Several Important Pieces of Health Legislation

The 1970 session of the Iowa General Assembly will begin January 12, 1970, and the Iowa Medical Society has developed certain guidelines with regard to legislation which that body will consider. Many issues other than those included in this brief outline will be considered by the General Assembly, but at this time these appear to be of particular interest to the medical profession.

PROFESSIONAL CORPORATION

A Professional Corporation Bill (SF 554) is presently on the Senate Non-Controversial Calendar, and a similar measure (HF 662) is in the House Commerce Committee. The proposal would permit such groups as architects, attorneys, accountants, dentists, engineers, optometrists, physicians, podiatrists, veterinarians and land surveyors to establish a special type of corporation which no one other than licensed practitioners of the respective professions could be stockholders. The proposed law would not change or modify any present statute with regard to individual liability or privileged communication, and would not change the personal relationship between the professional man and the person he is serving.

Only three or four states do not have professional corporation laws, and Iowa needs legislation to place it on an equal footing with other states, particularly in the recruitment of individuals to practice professions within Iowa borders.

The proposed law is supported by almost all professional associations, and it merits quick action by the 1970 Iowa General Assembly.

CHIROPRACTIC

In 1969 certain chiropractors made extensive efforts to enact SF 91, a bill to expand the practice of chiropractic. Although the bill was debated on the floor of the Senate and some amendments were adopted, it was returned to committee prior to any final action. It is difficult to determine any actual need, either from the standpoint of chiropractors or from that of their patients, for a broadening of the scope of chiropractic practice. The proposed bill would broaden both the scope of diagnosis or "analysis" and also the scope of "treatment."

The Society does not regard it as either fair or reasonable to ask legislators to alter a well-established definition of what is actually a very complex relationship in a field as vital and important as health care without first assuming the burden of establishing:

1. The need for a change
2. The specific practice and procedures which chiropractors seek to be authorized to do.

SF 91 seems to be a "blank check" which the Society feels should not be enacted without further demonstration of a need and benefits to the people of Iowa.

Interestingly, the chiropractors themselves do not agree on the need for a change in the Chiropractic Practice Act. The Iowa Medical Society feels that the present chiropractic law, as interpreted by the courts, is definite, and it believes it should remain unchanged.

STATE CRIME LABORATORY

The State Crime Laboratory Bill (SF 585) passed the Senate and is in the House Committee. It would establish a State Crime Laboratory under the direction of a State Medical Examiner, within the University of Iowa College of Medicine. The Iowa Medical Society favors this type of legislation, and is supporting an amendment which clarifies the fact that the State Lab will be under the direction of the State Medical Examiner.

OPTICIANS

This measure (HF 342; SF 288) would provide for the registration of dispensing opticians, and would vest the State Board of Medical Examiners

with responsibility for administering the law. The Iowa Medical Society strongly supports it, in accordance with actions of its House of Delegates.

The bill makes it clear that dispensing opticians can fill physicians' prescriptions for contact lenses. Since the legislation was first introduced, the Iowa Optometric Association has brought suit against an optical firm to enjoin it from fitting contact lenses. The bill would provide suitable safeguards to protect the public, and it confirms the existing pattern of practice whereby physicians have been furnishing patients with prescriptions for contact lenses.

The legislation is still in the House and Senate committees, and should be reported out and enacted. Otherwise there is a risk that ophthalmologists will be compelled personally to fit and dispense contact lenses, or to have the work done by technicians in their offices. This change would seriously affect this area of medical practice and would tend to give optometrists a monopoly in the contact-lens field, inasmuch as they customarily do their own refracting, fitting and dispensing in their offices.

TITLE XIX—MEDICAID

During the past few months the state government's Special Legislative Study Committee has been making a comprehensive evaluation of Iowa's Medicaid program. Representatives of the Iowa Medical Society appeared before that Committee to present testimony regarding the background of Medicaid and what the future may hold for this health-care financing program.

The Society continues to feel that the following principles are essential parts of any Title XIX program. The Medicaid philosophy—that health care should be available to those who need such care but are unable to afford it—is one supported by the Medical Society. Four additional principles which the Society endorses are:

1. Freedom of choice for recipients of care
2. Professional freedom by practitioners
3. Use of a private fiscal intermediary
4. Payment of usual and customary fees.

The Iowa Medical Society has undertaken a comprehensive program of peer review to assure the public and the profession that quality medical care at reasonable cost will be provided to program recipients.

Despite the problems inherent in any new program of this sort, the Iowa Medicaid program is one of the best in the United States, and it merits the continued support of the Iowa General Assembly.

MEDICAL MANPOWER

During the last two months a second series of statewide regional meetings to discuss "Medical Manpower" has been jointly sponsored by the Iowa Medical Society, the University of Iowa College of Medicine and the Health Planning Council of Iowa. This most recent series has been conducted in close cooperation with the Iowa State Extension Service and many other related health groups. These meetings are being held in an attempt to give the civic leaders, legislators, officials of local governments and heads of health-oriented organizations and service clubs in every county a capsule review of the status of health care in the state and nation, and a knowledge of the trends which are vital as we plan for the future.

At each meeting there are presentations on:

1. The economic and population trends in the area
2. The status of health care in the area
3. The constituents of a desirable and achievable level of health care for the area
4. The ancillary services such as ambulance, visiting-nurse and homemaker which might be established.

The Iowa Medical Society and other organizations will continue striving to maintain and improve the quality and extent of health care available to Iowans, and will continue their efforts to increase the number of physicians practicing in the state.

Many other items of legislation are of interest to the Medical Society, and questions on specific bills can be directed to the Headquarters Office at 1001 Grand Avenue, West Des Moines, Iowa 50265.

Some of the proposals which will demand the attention of the Committee on Legislation are as follows:

1. SF 269 Radiation control
2. HF 402 Ambulance licensing (The Society has approved guidelines which any state legislation must meet to receive approval of the Iowa Medical Society.)
3. HF 199 Vital statistics
4. SF 386 Renal disease program (Same as HF 656)
5. SF 456 Nursing home administrators
6. HF 623 Hearing aid dealers (Same as SF 550) (The IMS Committee on Legislation strongly endorses the concept of bringing paramedical groups under the Board of Medical Examiners whenever they request registration or licensure. This, of course, is only an alternative to the basic IMS position which supports the voluntary registration but opposes the mandatory licensure of paramedical groups.)
7. SF 265 Blue Cross-Blue Shield tax (Same as HF 481)
8. HF 221 Proposal to make Blue Cross-Blue Shield a mutual insurance company
9. HF 411 Hospital service discounts
10. SF 318 Physical therapy (direct supervision)
11. Amendment to SF 77 regarding temporary licenses for physicians
12. HF 610 Removal of mandatory provision for Title XIX carrier.

Mercy Hospital, Des Moines

Clinicopathologic Conference

Recurrent Pneumonia With Sinusitis and Angiitis

SUMMARY OF CLINICAL FINDINGS

A 33-YEAR-OLD CAUCASIAN male was admitted to another hospital on March 24, 1965, with swelling of the right side of the nose. He had been well until September, 1964, when he developed a productive cough, night sweats, chills and fever. With outpatient treatment he improved, except for his cough. Follow-up x-rays in November, 1964, had shown a right upper lobe infiltrate. Despite more treatment the patient's cough persisted. In early December, 1964, he had again developed chills and fever and was hospitalized. A right middle lobe pneumonia was diagnosed on that occasion, but the causative organism was not determined. In late December he had been hospitalized again, with a recurrence of symptoms and a right lower lobe infiltrate. Culture of the sputum then revealed normal flora. At that time his urinalysis showed 4+ protein, occasional white blood cells and hyaline casts and a normal blood urea nitrogen, but his urine returned to normal prior to his discharge from the hospital. Between September and December, 1964, he lost 30 to 35 lbs.

Subsequently he did well, but in March, 1965, as has been said, a swelling of the right side of the nose and a swelling over the maxillary antrum were noted. There also was a foul yellow nasal discharge, and x-rays of the sinuses revealed a cloudy right maxillary antrum. A Caldwell-Luc procedure with biopsy revealed nonspecific chronic inflammation.

History: For 20 years the patient had experienced recurrent sinusitis, and for 15 years he had had intermittent hoarseness. He denied any previous hematuria.

Family history and review of systems: Unremarkable.

Physical examination: The patient was a thin man, and he appeared chronically ill and older than his stated age. His height was 6 ft.; weight 142 lbs.; temperature 100°F.; pulse 90/min.; and blood pressure normal. His voice was hoarse and had a slight stridor. The right side of his nose and an area over his right maxillary sinus showed generalized induration. It was very firm, non-tender and non-erythematous. The mucous membranes of the right nasal passages appeared thickened. The mucosa of the right nares appeared irregular, nodular, pale and friable. Auscultation of the chest revealed harsh breath sounds over the right upper lobe. The remainder of the examination was within normal limits.

Laboratory data: The red and white blood counts were normal. The hematocrit was 39 per cent, and the sedimentation rate was 42 mm./hr. Urinalysis revealed 1+ proteinuria, with 3-5 white blood cells and 0-3 red blood cells per high-power field. The BUN, serum electrolytes, serology, lupus erythematosus preps, complement fixations for coccidioidomycosis, histoplasmosis and blastomycosis, serum electrophoresis, bleeding time, coagulation time, prothrombin time, total serum iron-binding capacity and per cent of saturation, urine culture, phenolsulfonphthalein, creatinine clearance, platelet count, 24 hr. urinary protein, uric acid and serum bilirubin were normal. A bone marrow revealed diffuse granulocytic hyperplasia. Biopsies of the vocal cord and nasal septum revealed necrotizing granulomatous inflammation, with angiitis. A skin biopsy was normal.

X-ray findings: The admission chest x-ray revealed a small patch of infilrate in the left lung field. Review of the x-rays, which had

been taken beginning in November, 1964, revealed three separate episodes of pneumonia involving the right upper, right middle and right lower lobe. The perinasal sinus x-rays revealed that both maxillary antra were completely opacified, with evidence of mucosal thickening in the left ethmoid sinus. A bronchogram performed on March 30, 1965, revealed complete occlusion of the right main stem bronchus. Considerable narrowing of the bronchus to the right upper lobe was also noted. There were mass lesions in the lumen of the bronchus intermedius, with almost complete occlusion. A barium swallow on April 21, 1965, was normal. An intravenous pyelogram revealed a small atrophic left kidney and compensatory enlargement of the right kidney.

Hospital courses: On March 25, 1965, the day following admission, airway obstruction became marked, with severe dyspnea. Laryngeal examination revealed nodules of granulation tissue on the vocal cords. A permanent tracheostomy, and nasal and laryngeal biopsies were performed, and on March 28 the patient spiked a temperature to 103°F. A left lower lobe infiltrate and moderate mediastinal emphysema were noted.

The patient was started on antibiotics, and within approximately one week his temperature fell to normal. After 10 days the antibiotics were discontinued. Subsequently he again developed fever ranging from 99° to 102°F. After bone-marrow examination, the patient was given three doses of methotrexate, on April 8, 13 and 20, 1965. On April 22 he was started on prednisone. During late April and early May, methotrexate was given him twice weekly. An EENT evaluation on May 7, 1965, revealed gross improvement, with regression of the granulomatous lesions in the upper portion of the trachea.

On May 14, 1965, he returned home, only to be rehospitalized on May 24 with a diffuse infiltrate on the right lung. The methotrexate was discontinued, and the antibiotics were restarted. On June 15, 1965, he became asymptomatic and again was placed on methotrexate. In August, 1965, he returned with marked respiratory difficulty. His chest x-ray revealed massive pneumonia on the left side. His sputum revealed many organisms, including a coagulase-positive Staphylococcus aureus. The antibiotics were again started, along with tracheal suction and intermittent positive-pressure breathing. He improved over the next three weeks, and by September 6, 1965, the lungs had completely cleared. During this time a new regimen, including cytoxin and prednisone, was started.

The patient was again sent home, but on September 28, 1965, fever, cough and back pain led to his readmission. A chest film revealed that the entire left lobe had a hazy infiltrate. Cultures of the blood, sputum, spinal fluid and urine were taken. The sputum grew out Staphylococcus aureus, coagulase positive. The patient's white blood cell count at that time was 4,800/cu. mm., with a shift to the left. His hematocrit was normal.

His condition improved for approximately a week. On the cessation of antibiotics, however, his temperature again spiked. On approximately October 8, 1965, his respiratory difficulty increased and he began a downhill course. A bronchoscopy was performed. The left main stem bronchus appeared edematous and hyperemic, and the right main stem bronchus was stenosed to approximately 3 mm. An attempt at dilatation of the right main stem bronchus was performed. On the same evening the patient's respiratory difficulty increased, and he went into shock. There was no fever at that time, but there was marked tachypnea. Despite steroid and vasopressors, the shock persisted, and the patient's pupils dilated and became unreactive. His temperature rose to 105°F., and he died on October 12, 1965.

CLINICAL DISCUSSION

Dr. Paul From, internist: I believe that the final diagnosis in this case will be an allergic angiitis. Many synonyms have been proposed for allergic angiitis. They include allergic arteriolitis, necrotizing vasculitis, nodular allergy, anaphylactoid purpura, purpura rheumatica, hypersensitivity vasculitis, allergic granulomatosis, Schönlein-Henoch syndrome, Wegener's granulomatosis and lethal midline granuloma. One of the first conditions described in what we now consider allergic angiitis was polyarteritis nodosa. The clinical correlation between polyarteritis nodosa and visible nodules along the course of medium-sized vessels was first made in 1866 by Kussmaul and Maier.

On the basis of histopathology, Zeek has classified the necrotizing vasculitides into the

following categories: (1) hypersensitivity angiitis, (2) allergic granulomatous angiitides, (3) rheumatic arteritis associated with rheumatic fever, (4) polyarteritis nodosa, and (5) temporal arteritis.[1]

Rupe and Birk[6] have suggested the following clinical classifications: (1) polyarteritis nodosa, including localized forms involving the gallbladder, uterus and appendix; (2) hypersensitivity angiitis; (3) granulomatous angiitides, including Wegener's granulomatosis and temporal arteritis (which may be associated with polyarteritis nodosa); and (4) arteritis associated with (a) rheumatic fever, (b) rheumatoid arthritis, (c) lupus erythematosus, (d) systemic sclerosis, (e) polymyositis, (f) Siccard's syndrome, (g) ulcerative colitis (i.e., vascular involvement other than in the colon), (h) possibly thrombotic thrombocytopenic purpura, or (i) possibly a result of steroid administration, particularly in rheumatoid arthritis.

Allergic angiitis is mostly characterized by a mild eosinophilia, asthma, urticaria and allergy in the skin, lungs and kidney. The very first sign may be skin purpura, or epistaxis, or acute gastrointestinal complaints, or polyarthritis, or acute fever with pneumonia. It can follow a streptococcal infection, the use of drugs, or the use of toxic agents such as chlordane. Occasionally there will be lupus erythematosus or Sjögren's syndrome. Usually the disease has an abrupt onset, but some of the chronic cutaneous forms of the disease develop more slowly. The neurologic signs include numbness and tingling of the extremities, stiffness, and mild regional paralysis involving cranial or peripheral nerves. Involvement of the gastrointestinal system may be manifested by nausea, vomiting, diarrhea and melena. Migratory swelling and pain of the joints are observed.

The course of the disease depends on the number of systems involved. If just one system such as the skin is affected, the course may be chronic, relapsing or self-limited. Usually, when the skin lesions appear, other systems are already involved if they are to be involved at all. Most of these systemic reactions affect the skin at some time during the development of the reaction, but often it is late in the course of a syndrome. When the lesion is localized to the skin or to just one other system, the patient may appear healthy. When many systems are involved, the patient appears acutely ill and febrile.

Allergic angiitis is a form of nonthrombocytopenic hemorrhage resulting from vascular inflammation and destruction. Consequently the usual tests of the formed elements of the blood —hemoglobin determination, white blood cell count and platelet count—produce normal results. Bleeding and clotting times are within normal limits. Clot retraction is normal. The Rumpel-Leede test is often positive. Although the white count may be normal, mild-to-severe eosinophilia may be present. The erythrocyte sedimentation rate is usually moderately elevated, and only in severe systemic forms is it high. Evidence of hemorrage in the urine, stools or tissues is a frequent accompaniment of even the milder cutaneous forms of the disease and should be looked for in all instances.

Additional laboratory studies that may help one in making the diagnosis are the rheumatoid factor, which is positive in 50 per cent of cases, the anti-streptolysin O titer and occasionally the lupus erythematosus clot test. In most instances serum protein electrophoresis is normal, although a slight elevation of gamma globulin can be seen. On occasion a transient decrease in platelets may occur after the administration of a drug. A protein is precipitated in the cold from the heparinized plasma of these patients. This heparin-precipitable protein is seen only during the activity of the disease.

The most reliable means of making the diagnosis is by tissue biopsy, and the most accessible site is the skin. Biopsy of skin or muscle or both gives a diagnostic picture of necrotizing leukocytoplastic vasculitis and hemorrhage. Biopsy is not always diagnostic. If the biopsy is taken from an area of tissue damage the diagnosis may not be apparent, and if there is bacterial or mycotic infection present in the area, the diagnosis may be obscured. The diagnosis of polyarteritis should be considered whenever there are peripheral neuropathy, eosinophilia, persistent fever, arthralgia and a change in pulmonary infiltrates. The classic patient with polyarteritis is a male who has a history of asthma or other allergic diathesis and who then develops peripheral neuritis, arthralgia, fever, weight loss, hypertension, eosinophilia, anemia and an increased sedimentation rate.

Of the possibilities under consideration this evening, I feel that this case most likely is an allergic or necrotizing vasculitis, and especially a case of Wegener's granulomatosis.

PATHOLOGIC DISCUSSION

Dr. Ronald Villella, pathologist: I should like to thank Dr. From for his excellent discussion. The diagnosis in this case is, in fact, Wegener's granulomatosis with atypical cell infiltration.

At autopsy, the patient's appearance conformed with his stated age, and he was in a reasonably good state of nutrition. The skin of his anterior chest exhibited a very mild, nonspecific chronic dermatitis. When the thorax was opened, a left pleural effusion of 300 cc. was noted. The lungs were increased in weight. The left one weighed 1,150 Gm., and the right one weighed 765 Gm. Both lungs had a firm consistency throughout all lobes. The parenchyma contained firm, dark-red nodules throughout. They were approximately 0.2 to 1.5 cm. in diameter, and they varied in color from pale red to tan. When squeezed, the nodules exuded a viscous, soft, semi-liquid black material. The right main stem bronchous showed an area of almost complete stenosis approximately 1 cm. from the bifurcation. The heart was of normal size and otherwise unremarkable. The spleen had a dark-red pulp, and weighed 405 Gm. That constituted an increase in weight. No specific areas of infarction or necrosis were noted in the spleen. The liver weighed 1,835 Gm. Numerous dark-red, punctate hemorrhagic areas with a lobular distribution were discernible. Those areas were limited essentially to the right lobe of the liver. The remainder of the biliary tree, pancreas and gastrointestinal system were unremarkable. The left kidney was atrophic and weighed 30 Gm. The right kidney showed compensatory hypertrophy. Except for mild brain edema and a brain weight of 1,405 Gm., no other gross findings were considered significant.

The microscopic appearance of the various



Figure 1. An area of granulomatous inflammation in the nasal septum (H&E stain X40).

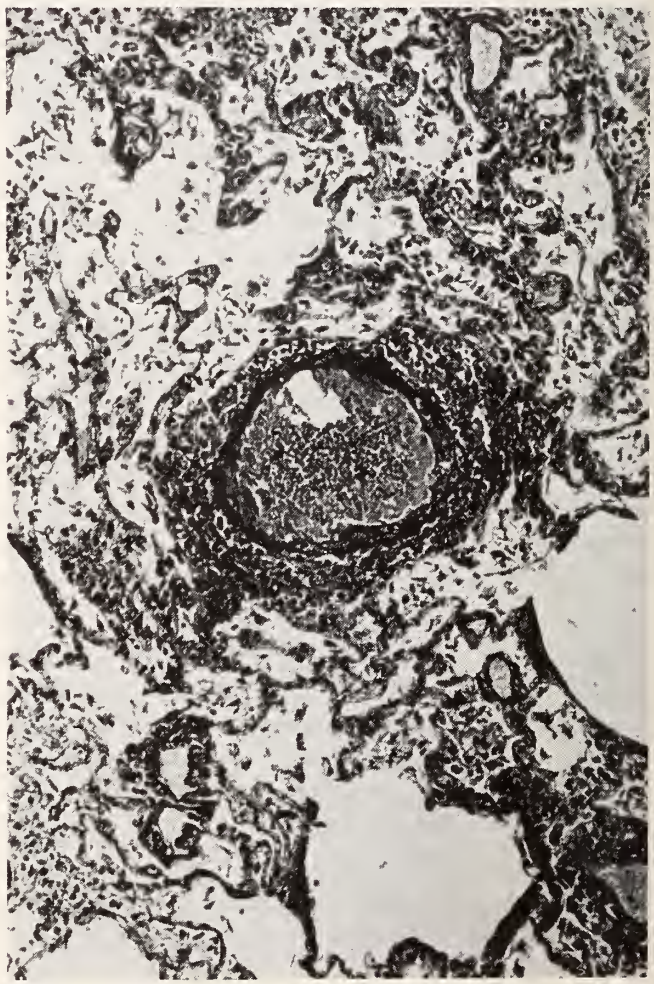


Figure 2. A pulmonary artery showing perivascular inflammation and mural damage (elastic stain X100).

tissues was characteristic of Wegener's granulomatosis. The infiltrate associated with the lesions, however, was considered slightly atypical in that it was more pleomorphic than one might expect on the basis of most of the cases reported in the literature. The biopsy specimens removed surgically from the vocal cord and nasal septum revealed areas of relatively bland necrosis surrounded by chronic inflammatory cells which included both histiocytes and round cells. This infiltrate seemed to be most prominent around blood vessels; hence the diagnosis of angiitis. In the lungs there were large zones of necrosis characterized by ghost architecture and eosinophilia. Surrounding those areas, a chronic inflammatory infiltrate was prominent. In many areas the infiltrate included histiocytes. No well-formed giant cells were found. Frequently, near the areas of necrosis, vessels could be indentified. Within the walls of these vessels—they included both arteries and veins—the infiltrate was prominent. It, too, consisted of a mixture of cells, including round cells, granulocytes and histiocytes. Some of them showed marked mitotic activity and rather large nuclei. In areas of lung distant from the necrosis, the vascular changes were also noted. In those areas the walls of both arteries and veins contained the mixed infiltrate, and in some areas distended lymphatics also contained it. Elastic stains on the lungs confirmed the marked vascular involvement. In rare vessels eosinophilic granular thrombi were noted. They were most prominent near the necrotic areas, but could be found in lung vessels at some distance from the necrotic lesions. Sections of lymph nodes showed the mixed infiltrate. Generally, however, the lymph nodes were not particularly enlarged. There had been no significant obliteration of their architecture, and the cortical and medullary sinuses could still be delineated. The infiltrate did, however, extend out into the perilymph-nodal fat. In those areas the vessels again seemed primarily involved. Sections of the liver revealed mild centrolobular fatty metamorphosis.

The prominent changes, however, centered on the vascular invlovement. There, again, both arteries and veins were affected by the mixed infiltrate, and to a degree the infiltrate was present in some of the hepatic sinusoids. Sections of the kidney revealed characteristic involvement of the glomeruli. There was a necrotizing glomerulitis with acidophilic homogeneous areas consistent with "fibrinoid deposition" or "fibrinoid necrosis." There was some suggestion of patchy epithelial proliferation. Many of the small vessels showed thickening and infiltration by atypical cells to a degree that was consistent with the previously described mixed infiltrate. In most areas the involved glomeruli showed a lobular type of membranous thickening. The renal tubules seemed to have been spared.

In short, the secondary findings included: (1) nonspecific, mild chronic dermatitis of the chest; (2) atrophy of the left kidney; and (3) granulocytic hyperplasia of the bone marrow. The primary findings could be subdivided into three categories: (1) necrotizing vasculitis with atypical cell infiltration, involving the heart, trachea and larynx, lungs, liver, kidneys and adrenals; (2) granulomatous inflammation

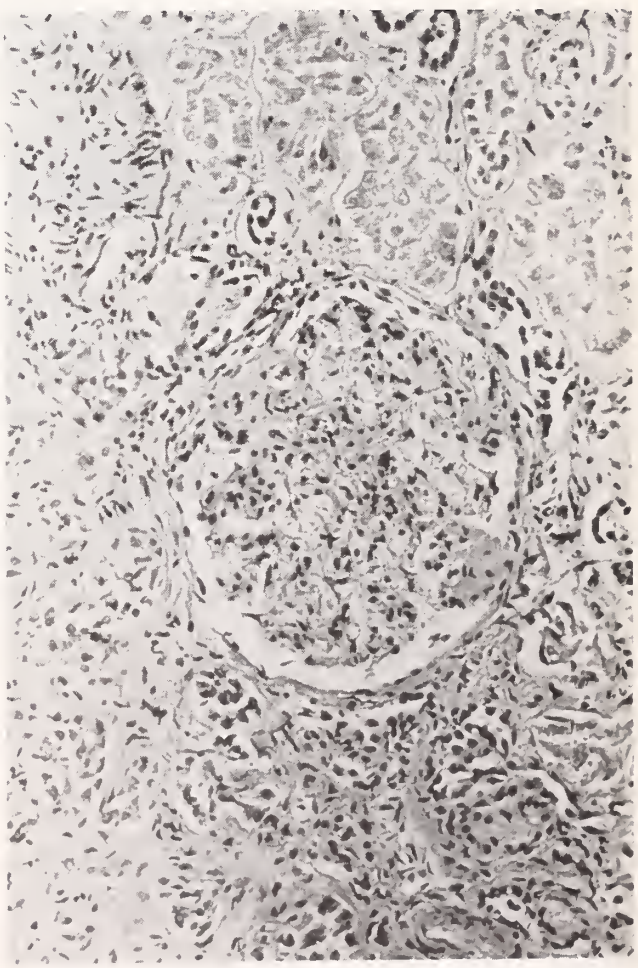


Figure 3. A glomerulus showing focal membranous thickening (H&E stain X450).

of the lungs, liver, kidneys and vocal cords; and (3) necrotizing glomerulitis.

In Wegener's granulomatosis, a triad of findings have been described. The components are: (1) generalized focal necrotizing vasculitis involving both arteries and veins, (2) necrotizing glomerulitis, and (3) necrotizing granulomatous inflammation of the upper respiratory tract. This triad was present in our case. In this instance as well as in other examples of Wegener's granulomatosis the morphologic findings warranted our considering some other diagnoses:

1. Hodgkin's disease
2. Other lymphomas
3. Multiple myeloma
4. Mycosis fungoides
5. The angiitides (periarteritis nodosa and others)
6. Specific infectious granulomatous diseases, especially tuberculosis
7. Sarcoidosis
8. Allergic granuloma with Loeffler's syndrome
9. Allergic angiitis and granulomatosis (Churg and Strauss[3])
10. Syphilitic gumma
11. Lethal midline granuloma.

The etiology of Wegener's granulomatosis is really unknown. Many authors feel that it belongs to the autoimmune group of diseases, and some feel that the basic lesion is a variant of polyarteritis nodosa. Although it may be an autoimmune disease on the basis of morphology, I do not feel that it is a variant of periarteritis nodosa of the large-vessel type described by Zeek.[1] It does seem that there is some relationship between lethal midline granuloma,[2] Wegener's granulomatosis of the generalized variety,[3] and limited Wegener's granulomatosis as described by Carrington and Liebow.[4]

Clinically the disease usually runs its terminal course in approximately five months. The respiratory involvement may be the main problem, but the commonest mode of death is renal involvement with renal failure. According to Neilsen *et al.* the treatment of choice and the one most commonly used consists of corticosteroids.[5] Of some 38 patients whom they treated with corticosteroids, 22 were said to show some degree of improvement.

In summary, this was the case of a 33-year-old Caucasian male with Wegener's granulomatosis. The disease was of 13 months' duration, and it was characterized by involvement of the upper-respiratory tract, lung, kidney and other systems.

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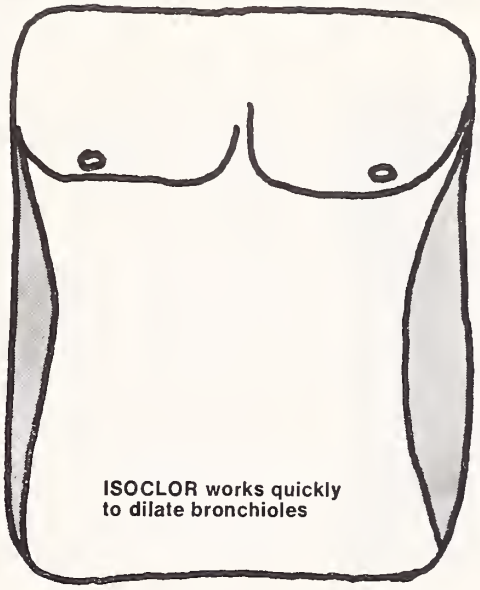
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Richard M. Caplan, M.D., a professor of dermatology and the director of the Office of Medical Education at the U. of I. College of Medicine, will be glad to help program chairmen of county medical societies by suggesting appropriate faculty members to speak at their meetings. He can be reached by telephone at (319) 353-4792.

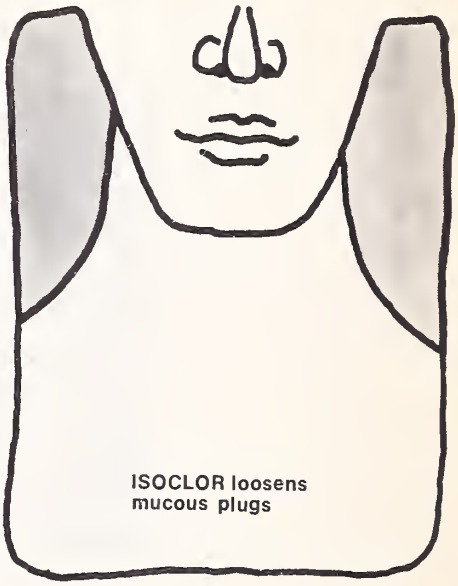
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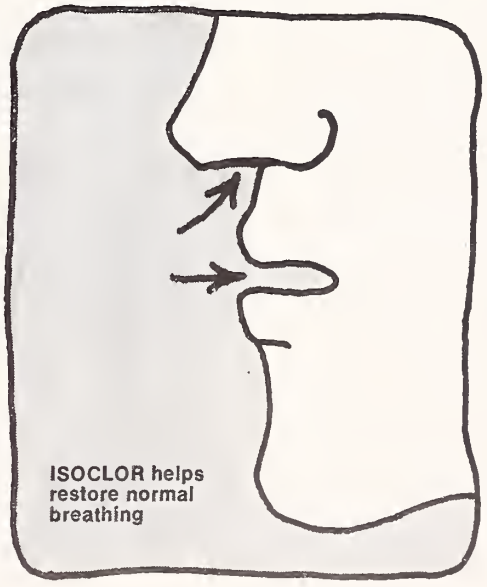
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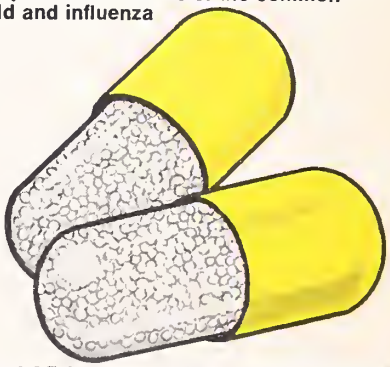


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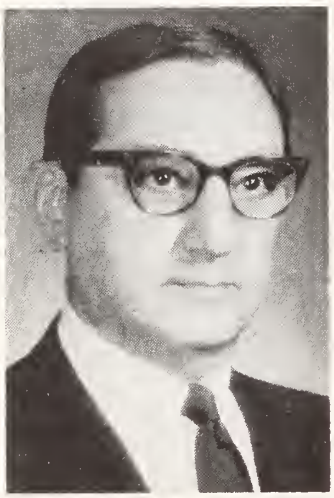
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President's Page



We arrive this month at year's end, and more significantly, at the end of a decade. Reflection becomes popular. Forecasting, too, has its momentary fling.

Where does American medicine stand at the close of the 1960's? We have Medicare for *all* elderly. We have Medicaid for the poor. The former we resisted long and strenuously. The latter—with its philosophy of care for those in need—we support. Both are massive undertakings, both have been beset by problems. Grossly under-budgeted—despite medical profession warnings—these programs have aroused public clamor. Who are the scapegoats? Physicians, primarily.

Cost miscalculations have set the stage for more political action. Further re-evaluation and revamping of the health care system appears inevitable. The AMA has presented Congress with a voluntary health insurance proposal based on income tax liabilities; governmental payment for private health insurance is provided those in the lower 30 per cent income tax range. (You will find it reviewed in some detail in "The Month in Washington" in this issue of the JOURNAL). Rockefeller and Reuther have compulsory health insurance in mind.

Basic in the whole dilemma is the supply-demand equation. More manpower, better utilization of existing manpower and facilities, and greater public understanding of health care are obvious key elements in balancing the equation.

Permit me one prediction: In the 1970's physician adrenalin will be tested!!

Wm M. Kingsley MD

President



Editorials

MERRY CHRISTMAS!

The staff members of the Iowa Medical Society and of the JOURNAL wish a Merry Christmas to the IMS members and to all of the others of the JOURNAL's readers. May there be Peace on Earth and Good Will Among Men. Let the divisive and conflicting elements in America unite in a harmonious effort to resolve its problems, and to fulfill the promise and the expectations of the nation's founding fathers. Such an attempt would be in the true spirit of Christmas.

LET'S JUST TAKE PRIDE IN MEDICINE'S ACCOMPLISHMENTS

A recent issue of the BRITISH MEDICAL JOURNAL contained a truly amazing report on operative treatment for typhoid perforation of the bowel.* It was unbelievable that such a procedure could still be in use in 1969. Some fine print at the bottom of the first page provided the explanation. The author of the article was identified there as "Lecturer, Department of Surgery, Ghana Medical School, Accra, Ghana."

According to the article, 789 cases of typhoid fever were admitted to the Korle Bu Hospital over a three-year period. Perforation of the bowel occurred in 141 (17.9 per cent) of the group. Of that number, 121 were proved cases of perforation at operation. The mortality was 29.8 per cent, but when the operation was delayed to the fifth day after perforation, the mortality rate was 76 per cent.

An account of this kind prompts one to pause, reflect and give thanks for the privilege of living in this country, for the benefits of modern medicine and for the sanitation and immunization measures which protect the health of its citizens. Both the public and the medical profession take many such blessings too much for granted.

The press has been highly critical of the medical profession. Most of the writers lack perspective that time and experience in the health field that many of us possess. How many reporters or free-lance writers have seen patients with typhoid fever, infants with whooping cough, a child with laryngeal diphtheria or with bulbar poliomyelitis, or a youngster convulsing with tetanus? How many have observed the changes that have been wrought by the miracle drugs in the treatment of bacterial infections? Physicians are quick to acknowledge that modern medicine has many unsolved problems and imperfections, but they are justly proud of its accomplishments.

There are those in the profession who would make a strenuous effort to refute the numerous allegations of the press. Others feel that such an attempt would but add fuel to the fire.

The concluding paragraph of Sir James Howie's presidential address to the 137th annual session of the British Medical Association suggests the most effective response that the medical profession of this country could make

* Archampong, E. Q.: Operative treatment of typhoid perforation of bowel. BRITISH M. J., 273-276, (Aug. 2) 1969.

Editorials continued...

to the adverse publicity that it has received:† "In short, I believe that all the present professional disillusionment and disenchantment, despite its complex causation, is largely capable of being disposed of by doctors themselves, by their making a resolve to understand and to stick to our traditional professional virtues. By so doing we may hope to be widely recognized as good, sound doctors; and if we are so recognized we shall gain or regain public esteem, and many present difficulties will melt away. It seems to me that the three things that matter are: that we rejoice in being firmly bound one to another by our professional training and experiences; that we cultivate the grace of good will and good humor, and even a sense of fun, and never lose hold of this under any trials; and that we devote our whole life and work to the service of our patients, keeping nothing back that we know how to offer. Patients' needs, however demanding, must always be compassionately received, because the only reason for our being doctors is that we have the will and the power to serve. There is no other way to happiness and fulfillment. But this one is sure."

† Howie, J.: Professional virtues (President's address). BRITISH M. J., 3:73-75, (July 12) 1969.

RETINOBLASTOMA, ONE OF THE COMMONEST MALIGNANCIES IN YOUNG CHILDREN

Zimmerman, of the Armed Forces Institute of Pathology, has made the rather startling statement in a recent article that retinoblastoma is not only the commonest intraocular tumor in children, but is also the most frequent of all malignant tumors during the first few years of life.* He also asserts that the retinoblastoma story is not only one of the most interesting in the entire field of neoplastic disease but is also one of the happiest, since it is an impressive record of achievement in the conquest of cancer. Improved therapy has not only saved patients' lives and made enucleation unnecessary, but also has preserved useful vision.

Estimates of the frequency of retinoblastoma vary from one in 14,000 to one in 34,000 live births. Though there have been well documented cases in which this neoplasm has been observed at birth, it is not recognized until the second year of life in most instances. This tumor is generally believed to be congenital, and according to Zimmerman no other truly malignant neoplasm of man has such a definite hereditary aspect and such a striking tendency to be familial.

He says that one very characteristic feature of the tumor is its tendency to arise in multiple areas within the retina. In a study of 760 cases on file at the Armed Forces Institute of Pathology, 19.3 per cent were found to have been bilateral. Bilaterality, strange to say, is not the result of metastatic spread, and if the tumor is first discovered in just one eye, repeated examinations may be required over a period of a year to detect the lesion in the other eye.

The author points out that before the turn of the century, retinoblastoma was almost invariably fatal. As enucleation became an increasingly accepted treatment, the survival rate gradually improved, and it reached the level of 57 per cent in 1916. One important contribution to the improved results was a recommendation that the optic nerve be severed as far back in the orbit as feasible at the time of enucleation. The basis for that recommendation was the finding that retinoblastoma usually spreads from the retina along the optic nerve to the meninges.

According to Zimmerman, of the 769 patients whose cases are on file in the Registry of Oph-

* Zimmerman, L. E.: Retinoblastoma. MED. ANNALS DIST. COLUMBIA, 38:366-374, (July) 1969.

thalmic Pathology, the average are at the time of enucleation was nearly three years for those reported between 1917 and 1943. The average age at enucleation for the patients whose cases were received between 1955 and 1960 was 11 months less. During these two periods the survival rate rose from about 50 per cent to about 78 per cent. Thus early recognition of the tumor is extremely important, and in large measure it determines the outcome of therapy.

The author emphasizes that today the ophthalmologist is no longer content merely to save the child's life. His objectives are to avoid enucleation and to preserve useful vision. By virtue of the great advances in radiation therapy and chemotherapy, and more recently as a consequence of the availability of photocoagulation, when necessary, cures are achieved in 90 to 100 per cent of favorable cases, and enucleation is unnecessary. In the less favorable cases—where there are large tumors or tumors located anteriorly—the tumor can be controlled in about one-half of the cases. The remaining degree of useful vision depends on the location of the lesions and the extent of residual involvement.

Since results in the treatment of retinoblastoma depend in large measure upon early recognition of the tumor, everyone concerned with the care of babies must be alert to the signs which suggest the possibility of its presence, and to the importance of prompt referral of the patient to an ophthalmologist. According to Zimmerman the single most important sign is an abnormal-appearing pupil. The normal pupil is round and jet black. If the pupil appears gray, white or yellow, or if it deviates in any way from the normal round, jet-black standard, a careful examination by an ophthalmologist is indicated. The sign most frequently observed by parents is whitening of the pupil, though it must be recognized that there are many other conditions of which this abnormality can be a symptom. A second important sign is a poorly fixing eye or an actual strabismus. If the macula is involved, a squint may become apparent before any abnormality of the pupil is observed by any member of the family.

He points out that since retinoblastomas grow large and produce a wide variety of complications, they must be considered in the differential diagnosis of many diseases of the eye and orbit. Unlike retroperitoneal neuroblastomas, the malignant tumor of the eye does not metastasize early. This tardiness accounts for its high rate of curability.

Zimmerman concludes with the statement that retinoblastoma is one of the most interesting of all malignant neoplasms. Once almost universally fatal—and it still is in some of the underdeveloped areas of the world—it now can be effectively controlled if detected early and managed properly. He emphasizes the necessity for parents, general practitioners and pediatricians to take note of any pupillary abnormality or any other ocular anomaly as a possible sign of retinoblastoma, and the urgency of ophthalmologic consultation in such cases.

CARDIAC HAZARDS IN ROUTINE DIAGNOSTIC STUDIES

An editorial in the July 19 issue of the BRITISH MEDICAL JOURNAL cautions the profession on the cardiac hazards that are posed by some of the routine techniques employed in the work-up of a patient with a clinical problem. The editors acknowledge that the chances of serious cardiac complications are relatively small and that clinicians may carry out the various investigations for many years without encountering any. They insist that physicians must be aware of the hazards, must be cautious in selecting patients to undergo the procedures, and must possess a knowledge of the resuscitative techniques by which a life-threatening cardiac arrhythmia can be corrected.

Emphasis is given to the fact that most of the problems associated with these diagnostic procedures have occurred in patients over 50 years of age and in patients who have heart disease. Thus it is suggested that no more than the necessary investigative procedures be carried out in this group of people, and that they be carried out, preferably, in a hospital where adequate monitoring and resuscitative procedures can be performed.

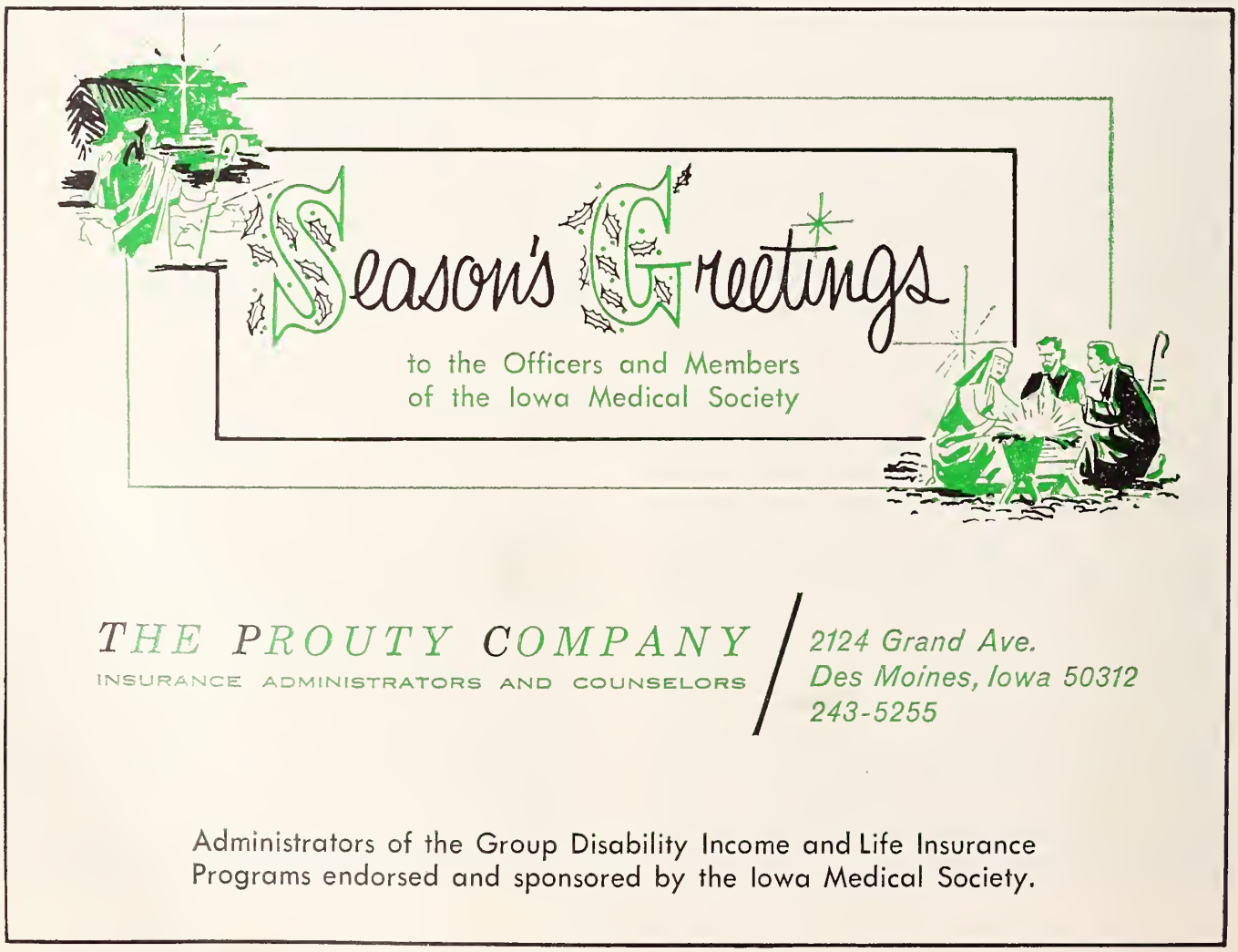
The editorial points out that most types of

Editorials continued...

endoscopy have provoked cardiac arrhythmias or EKG evidence of myocardial ischemia in some susceptible individuals. Reference is made to a report by a group in this country about three cases of sudden and fatal cardiac arrest among a total of 1,800 patients who underwent routine sigmoidoscopy. This prompted an EKG study of 100 patients undergoing this procedure. Arrhythmias, mostly ectopic beats none of which were of serious significance, were observed in 40 per cent of 40 patients with known cardiac disorders, but in only 17 per cent of 60 patients free of cardiac disease. Both arrhythmia and myocardial infarction have been reported following gastroscopy, though such complications are rare. Serious arrhythmia and cardiac arrest have been reported complicating diagnostic endoscopy, but this too is extremely uncommon. Arrhythmias have also been observed during endotracheal intubation, and during bronchoscopy under either local or general anesthesia.

It is not surprising that cardiovascular complications sometimes occur with some of the new techniques of diagnostic radiography. In cardiac catheterization and coronary angiography such problems are not unexpected, and facilities are at hand for their correction. Rather surprising were several reports of severe reactions during intravenous pyleography, with hypotensive collapse and cardiac arrest. These patients were in the 50- to 60-year age group. Similar reactions have been observed during intravenous cholangiography. It is pointed out that complications are uncommon with the less sophisticated procedures, but the clinician must recognize that they can and do occur.

The circumspect physician will ask himself, "Is this diagnostic procedure necessary, and is it safe?" And if there is a risk involved, he will ask himself, "Is the test of such importance that it is worth the risk?"



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INFORMATION FROM THE
IOWA HEART ASSOCIATION

Prosthetic Replacement of the Aortic Valve

A Current Assessment of Operative Results

ANDREW G. MORROW, M.D.

In the adult patient with clinically significant aortic stenosis or aortic regurgitation, the aortic valve is always severely deformed, frequently lacking in substance and usually the site of dense calcification. In the past, attempts were made to restore function to such valves by debridement and commissurotomy or other reconstructive procedures, but experience has shown that these operations are ineffective in providing lasting benefit. Thus, when operative treatment becomes necessary in the adult with acquired aortic-valve disease, it must be assumed that total replacement of the valve will be necessary.

The Starr-Edwards prosthesis has been most widely utilized for aortic valve replacement, and between February, 1963, and September, 1967, it was employed in 175 patients undergoing valve replacement at the National Heart Institute. The early and late results of operation in these patients are summarized in the present report.

THE PATIENTS

The 175 patients were 16 to 68 years of age (mean 47 yrs.); 136 were men and 39 women. All were distinctly symptomatic; 36 were in functional Class II (New York Heart Association Criteria), 123 in Class III, and 16 in Class IV. The patients in Class II were all severely limited by episodic angina pectoris and/or syncope. On examination, the usual physical, roentgenographic and electrocardiographic findings associated with aortic-valve disease were present. All patients were studied preoperatively by cardiac catheterization and selective angiography. Pure or predominant aortic stenosis was present in 76 patients; pure or predominant aortic regurgitation in 59 patients; and stenosis and regurgitation of similar severity in 40 patients. Thirteen patients had defective aortic prostheses of other types, and four had aneurysms of the ascending aorta which necessitated resection or aneurysmorrhaphy. Excluded from present consideration are other patients in whom aortic-valve replacement was accompanied by an operation on the mitral and/or tricuspid valve.

The aortic valve was exposed during a total cardiopulmonary bypass conducted during mild (30°C.) general hypothermia. The left coronary artery was perfused. The diseased valve and any residual calcific deposits in the annulus and septum were resected, and a prosthesis of suitable size was inserted. The valves were those available at the time, and they had silastic poppets and bare metal struts and orifices (Models 1000 or 1200). In virtually all patients anticoagulation with warfarin was instituted in the early postoperative period and was maintained thereafter.

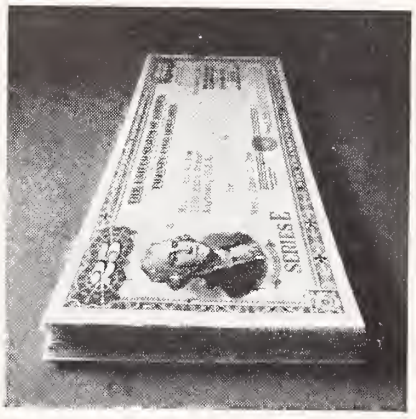
THE RESULTS

Immediate Mortality: Twenty-four patients (14 per cent) died during the hospitalization at which valve replacement was performed. Nine patients died in the operating room, five as a result of technical problems related to placing the valve or closing the aorta; four other patients could never sustain an effective circulation after bypass, and one of them was found at necropsy to have severe and unrecognized mitral stenosis. Postoperatively, fatal hypotension and low output occurred in three patients, possibly because the prosthesis was too large for the aorta. Five patients died of uncontrollable ventricular arrhythmia, and three of renal failure. Cerebral hemorrhage, infected aortotomy, pulmonary consolidation, and endocarditis caused one death each.

Late Mortality: Thirty-eight (22 per cent) of the original 175 patients have died at intervals of three months to five years after operation. In 10 patients death was sudden and unexpected, and no anatomic cause was apparent at necropsy. Ten other patients have died as the result of degeneration of the silastic ball. The remaining 18 patients have died of various causes including left ventricular failure, arrhythmia, myocardial infarction, endocarditis, and hepatitis.

Thromboembolism: Since 1965, all patients with Starr-Edwards valves have been given therapeutic doses of warfarin unless a specific contraindication existed. Twenty-eight of the 113 surviving patients have had a total of 31 cerebral emboli with definite neurologic abnormalities. Twenty-

Dr. Morrow is chief of staff in the Clinic of Surgery at the National Heart Institute, Bethesda, Maryland.



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five of the 28 patients recovered without detectable neurologic sequelae; in two patients mild residual abnormality persists, and in the other patient a moderate weakness of the arm prevents employment. A number of other patients have decribed brief episodes of vertigo, paresthesia or aphasia, but none has ever had a neurologic abnormality on examination. Two patients who died suddenly and unexpectedly were found at necropsy to have coronary artery emboli.

Eight patients have experienced bleeding as the result of warfarin administration, and two of them with intracranial bleeding (intracerebral or subdural) have died.

Symptomatic Improvement: The 113 surviving patients have been followed for periods of one to five years (average 34 mos.), and detailed reassessments have been made in all. Eighty (71 per cent) of the 113 survivors are asymptomatic (Class I), and the remaining 32 experience symptoms only during unusual activity (Class II).

Hemodynamic Improvement: Postoperative cardiac catheterization has been performed in 100 patients at an average interval of seven months postoperatively. A systolic gradient across the prosthesis was usually evident, but the average value at peak systole was only 12 mm. Hg. The left ventricular end-diastolic pressure exceeded 15 mm. Hg in 66 patients preoperatively; it fell postoperatively in all but four of these, and the value was greater than 15 mm. Hg in only 15 patients postoperatively. The cardiac index was usually normal both before and after operation in patients with aortic stenosis. In two-thirds of those with aortic regurgitation it was abnormally low preoperatively, and normal in all but three postoperatively.

SOME CONCLUSIONS CONCERNING AORTIC VALVE REPLACEMENT

The immediate risk of aortic valve replacement is 10-15 per cent, and a significant number of survivors can be expected to die later of causes directly or indirectly related to the operation or the prosthetic valve. Thus, at this time operation should be recommended only to distinctly symptomatic and severely incapacitated patients, those in whom the risk of early death without operation can reasonably be considered equal to or greater than that associated with valve replacement. Valve replacement is certainly to be avoided under all but extreme circumstances in the child or adolescent. The diagnosis of aortic stenosis and/or aortic regurgitation is readily apparent on clinical examination, but information concerning the severity of the malformation can be obtained only by means of appropriate hemodynamic and angiographic studies. Such studies should be applied preoperatively in most patients to provide assurance that symptoms are entirely or principally attributable to the defective valve and that improvement can be expected after valve replacement. When severe stenosis or regurgitation has been proved in a severely symptomatic patient, operation is always recommended. Certain preoperative findings such as prior myocardial infarction probably indicate an increased operative risk, but at this time none constitutes an absolute contraindication to operation

Patients who survive operation derive gratifying symptomatic improvement, and in most of them the intracardiac pressures then return to normal or near-normal values.

These attitudes and conclusions concerning aortic valve replacement are based almost entirely on relatively early experience with Starr-Edwards prostheses. Early mortality can certainly be reduced by more exact intraoperative and postoperative management, and almost two-thirds of the early deaths in this series could now be avoided. Also, valves used since September, 1967, have metallic poppets, which should be indestructible, and the fabric covering of the orifice and struts should eliminate or greatly reduce the incidence of systemic embolization. With these valves, permanent anticoagulation is presently considered unnecessary. When there is sound evidence that modifications of the operation and the prosthesis have reduced the risk of late death or disability, valve replacement can be recommended to patients early in the course of their disease.



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Warnings: Lomotil should be used with caution in patients taking barbiturates and with caution, if not contraindicated, in patients with cirrhosis, advanced liver disease or impaired liver function.

Precautions: Lomotil is a Federally exempt narcotic with theoretically possible addictive potential at high dosage; this is not ordinarily a clinical problem. Use Lomotil with considerable caution in patients receiving addicting drugs. Recommended dosages should not be exceeded, and medication should be kept out of reach of children. Should accidental overdosage occur, signs may include severe respiratory depression, flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils, tachycardia; continuous observation is necessary. The subtherapeutic amount of atropine sulfate is added to discourage deliberate overdosage.

Adverse Reactions: Side effects reported with Lomotil therapy include nausea, sedation, dizziness, vomiting, pruritus, restlessness, abdominal discomfort, headache, angioneurotic edema, giant urticaria, lethargy, anorexia, numbness of the extremities, atropine effects, swelling of the gums, euphoria, depression and malaise. Respiratory depression and coma may occur with overdosage.

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[illegible]	½ tsp. 5 times daily (5 mg.)
[illegible]	1 tsp. t.i.d. (6 mg.)
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[illegible] yr.	1 tsp. 5 times daily (10 mg.)
Adults	1 tsp. 5 times daily (20 mg.)
	[illegible] tablets q.i.d.

*Based on 5 cc. per teaspoonful.

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Iowa Association of Medical Assistants

This Year Hawaii; Next Year Iowa

Mahalo (thank you), and hui hou kaua (until we meet again).

Our president, Nancy Hutson, issued an invitation to all of the medical assistants present at the Honolulu meeting to "Reap a Harvest in Iowa" October 25-31, 1970, and the delegation of some 35 Iowans rose to their feet in accord. Our members were wearing their now well known "wild rose hats," and made a striking picture all grouped together. Our lovely centerpieces graced the table at that luncheon, and you may be interested to learn that they subsequently were carefully dismantled and all of the styrofoam pieces were packed for use in therapeutic programs at the Honolulu Children's Hospital. We were happy to find that use for them.

It seems such a long time since those busy days of sightseeing, work and fun. We shall not soon forget the Early Bird Coffee Party at 6:30 in the morning preceding the opening of our House of Delegates. To watch the sunrise over Diamond Head and to enjoy hot coffee and sweet rolls, plus Hawaiian entertainment, was well worth losing a little extra sleep.

The House of Delegates meetings, as always, were interesting and informative. I felt it a great privilege to be seated in that body of about 140 voting members representing all but five of our 50 United States. Discussions are already started regarding the formation of an international group. I was honored, too, by being named chairman of the Public Relations Committee this year, and I will do my best to promote our Medical Assistants Association at the national level.

In an effort to avoid confusion and adopt a name which will be uniform for all our constituent and component chapters, we voted last year to be known as the American Association of Medical Assistants, Inc. The final decision was made this year as to designations of the state and local or county chapters. We shall now use "State of Iowa" followed by the name of the local chapter.

The 200 of us, more or less, who chose to sit for the CMA "Mini-Test," a simulated certification exam, felt a sense of satisfaction and afterwards sported our Red Badge of Courage proudly. As the Creed of Maimonides says: "May there never develop in me the notion that my education is complete, but give me the strength and leisure and zeal continually to enlarge my knowledge." The test consultant, George A. Wagoner, of the University of Tennessee, explained that each section was approximately 20 per cent of the real examination which will be given over a two-day period in June. The basic examination consists of three sections, which all candidates will be required to take. In Honolulu we were given a choice of Clinical or Administrative sections. On the real examination, we would be able to take each section separately and would be permitted to return and try again those sections that we failed on the first attempt. There is excellent material available to help us achieve our aim of better-educated medical assistants. It can be obtained through our AAMA Executive Office, 200 East Ohio Street, Chicago 60611.

Our Honolulu convention had many highlights, and certainly Dr. Christiaan Barnard's address was one of the greatest. The South African heart surgeon answered critics of heart transplantation by saying, "It is better to transplant a heart than to bury it so that it can be devoured by worms." He also noted that for years hearts have been taken from cadavers and kept alive in bottles and used in scientific research. Only since the start of heart-transplant operations have some people become sensitive about it. He said that heart transplantations are not expected to restore patients to "a completely normal life, with a normal life expectancy." Instead they offer recipients another few months or few years of life. He called the operations palliative—designed to prolong life and improve the patient's condition. He noted that one of the five patients on whom he has performed a heart transplant was so despondent over failing health that he tried to commit suicide shortly before his operation.

He took his audience through the steps of a transplant operation by means of a slide lecture, beginning with pictures of the hospital with which he is associated, and finishing by reciting a little poem:

> "Sooner or later, the man who wins
> Is the man who thinks he can."

To him, that couplet symbolizes the possibility of supreme human achievements. He predicted that

(Continued on page 1117)

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Dosage: One 350 mg. capsule, 3 times daily and two at edtime is suggested as the adult starting dose. Adjust to uit individual requirements. Daily doses above 3000 mg. re not recommended.

Contraindications: Known hypersensitivity to tybamate. ince no studies have been done with this drug in human regnancy, it should not be used in pregnancy unless the otential benefit outweighs the risk.

Warnings: Administer cautiously to patients receiving henothiazines or other CNS depressants or having his-ory of convulsive seizures (See Adverse Reactions). Con-ider possibility of additive actions with alcohol or other sychotropic agents, particularly phenothiazines or MAO nhibitors.

Precautions: Avoid abrupt withdrawal after prolonged se, although withdrawal symptoms have not been reported o date. Exercise caution in addiction-prone individuals. If ymptoms of hypersensitivity occur, discontinue at once nd initiate appropriate symptomatic treatment. Avoid ctivities requiring optimal mental alertness if drowsiness r vertigo are present. As with any new drug, use cautiously n patients with history of drug allergies, blood dyscrasias, nd hepatic or renal disease; periodic measurements of epatic, hematopoietic and renal function should accom-any prolonged and/or high doses.

Adverse Reactions: Most frequent reactions, rarely re-uiring discontinuation of tybamate, include drowsiness, izziness, nausea, insomnia, and euphoria. There have been few reports of skin rash, urticaria, and pruritus. Rare side ffects include hyperactivity, fidgetiness, flushing, and tach-cardia, suggesting excessive stimulation; also ataxia, un-teadiness, confusion, feeling of unreality, "panic reaction," atigue, headache, paresthesias, vertigo, gastrointestinal isturbances, glossitis, and dry mouth. Grand mal or petit nal seizures have been reported in a few hospitalized psy-hotic patients receiving tybamate (up to 6000 mg. daily) ogether with phenothiazines and other psychotropic gents, but not with tybamate alone. Consider the possibil-ty of rare, serious adverse reactions such as may occur vith the related drug, meprobamate. If excessive amounts re ingested, gastric lavage and symptomatic therapy, in-luding central stimulants as necessary, are recommended. Before prescribing, consult package circular.

Supply: Tybatran (tybamate) is available in green, sealed capsules of three strengths: 350 mg., 250 mg., and 125 mg. Each strength is supplied in bottles of 100 and 500.

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Iowa Association of Medical Assistants

(Continued from page 1115)

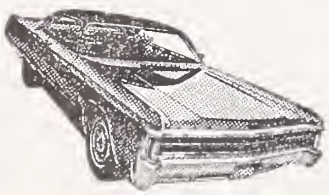
someday a computerized center will be established to pool donors and recipients from the whole world. "If we can achieve this, it will be difficult for us to make war against each other," he concluded. More than 1,500 people crowded the large Pacific Ballroom to hear Dr. Barnard.

We had the privilege, too, of witnessing the premiere showing of a 16 mm. color and sound motion picture entitled "Case in Point." It deals with the medicolegal responsibilities of the medical assistant. It covers such problems as handling emergencies when the physician is away; medication errors; first-aid problems; missing prescription blanks; confidential information and the many day-by-day happenings in our own offices. This is a film which physicians as well as medical assistants should see, and some questions are asked as a means of starting a discussion period at the close of the movie. It is available through the Wyeth Film Library, P. O. Box 8299, Philadelphia, Pennsylvania 19101.

As the Christmas Season approaches once again, and as we look forward to a New Year, I should like to extend to each of you my best wishes for a Happy Christmas and much success in 1970.

—Jeanne D. Green

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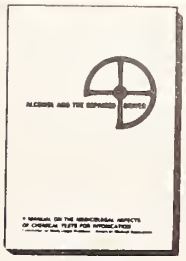
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THE DOCTOR'S BUSINESS



Personnel Policies for the Medical Office

LARRY E. LEAVERTON
Des Moines

Some physicians think personnel administration and personnel policies are important only in a large office. They are mistaken. Rigid and clearly defined policies are essential in a manufacturing plant or an insurance company, but even in a small medical office with no more than one or two employees there should be written rules.

Many of the problems that we, of Professional Management Midwest, encounter or deal with are in the area of personnel administration. Few physicians would disagree that if they are to practice efficiently and handle their current patient load and other demands upon their time, they must employ the best possible medical assistants. But if they are to hire and retain such assistants, they must have personnel policies, preferably in writing, as a means of preventing misunderstandings.

Most personnel problems are due simply to misunderstandings and faulty communication, but they contribute to the high employee-turnover that many offices experience. Our experience has been that each employee wants to know where she stands—what she can expect in the form of compensation and time-off, and precisely what her duties and responsibilities are.

When necessary, a written set of personnel policies can be fairly flexible, and they should be subject to periodic review and changes. For example, a policy on a sick leave can be relaxed for a loyal key employee with 15 years' tenure.

HERE ARE WHAT GOOD PERSONNEL POLICIES CAN HELP YOU AVOID

We see frequent ill effects of a lack of personnel policies:

- A capable medical assistant with a potential for growth quits on short notice because of what she considers favoritism and discrimination in the office.
- Three physician partners have given three different answers to an employee who asked for time off to attend the funeral of a close relative.
- A good employee left because her husband complained about late evening work that she hadn't been led to expect when she was hired.
- A confused new employee has no one to turn to with her questions about routines and limits of responsibility.
- A self-employed retirement plan has been in effect for two years, but the employees have no idea of the benefits they can expect from this liberal arrangement.

AND THESE ARE SOME POINTS YOUR PERSONNEL POLICIES SHOULD COVER

Starting salary, probationary period, paydays, frequency of reviews of performance, merit increases, and terms of severance or termination. Be aware of the comparable scale and cost-of-living increases in your locality.

Working hours—Hours when the office must be covered, lunch periods, days off.

Vacations—Two weeks after one year is normal. Additional weeks are sometimes allowed to senior key employees. Specify the vacation periods so that your office can be covered at all times.

Sick leave—A half-day per month is commonest, with accumulation to a maximum of 20 working days. Sick leave should be precisely what the name implies, and employees should not be permitted to regard it as extra time-off to which they are entitled regardless of the state of their health.

Paid holidays—In our section of the country, six paid holidays are common: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving and Christmas.

Bonuses—A recent survey by our firm showed

Mr. Leaverton has been associated with Professional Management Midwest since 1949. He is a partner in the firm, and is director of its Research and Development Department.

that Christmas bonuses are given in 74 per cent of our clients' offices. Bonuses are compensation, of course, and the employee's monthly salary should be borne in mind when the amount of her bonus is determined.

Overtime—At present the law does not prescribe compensation for overtime in most of the smaller medical offices. Compensatory time-off is usually granted for extra hours of work.

Personal appearance—If uniforms are required, who is to pay for them? The personnel policies should also stress neatness and a good general appearance before the public.

Miscellaneous benefits—It is fairly common for physician-employers to provide medical care to their employees and to the members of their immediate families, either free or at reduced fees. But specialists cannot do this very well. An alternative that employees welcome is the payment of premiums on medical or health insurance as a fringe benefit. Then the employees can go elsewhere for medical services, if they desire, and if they do, no disrespect for their employer should be inferred.

The survey mentioned earlier revealed that 52 per cent of our clients' offices are covered under provisions of self-employed retirement plans. There are other benefits that the employer underwrites and which should be called to the employees' attention. Two of these are the portion of the Social Security tax that he pays, and the unemployment-insurance tax that he pays.

Well defined, well written personnel policies do not provide answers to all personnel problems, but they constitute good practice. Don't forget to offer a word of praise or appreciation, when warranted. Proper indoctrination, open lines of communication, staff meetings, clear definitions of duties and the utilization of good interviewing techniques are likewise important.

Test for Allergy to Penicillin

Four University of Iowa medical scientists have developed a test for penicillin allergy which can be performed in one hour without subjecting the patient to the risk of a severe reaction. They are Edward J. Hicks, Ph.D., an assistant in clinical immunology, Keith R. Long, Ph.D., a professor, and Kenneth MacDonald, Ph.D., an associate professor, all in the Department of Preventive Medicine and Evironmental Health, and Carleton D. Nordschow, M.D., Ph.D., an associate professor of pathology.

The test is based on a search for specific antibodies in blood serum by a procedure called immunofluorescence, according to Dr. Hicks. Antibodies present in a serum sample are caused to give off a bright green-yellow glow which can be detected by laboratory equipment. It is faster than any penicillin-sensitivity test presently in use, and it does not expose the patient to penicillin as the scratch test does. The new technique has not been tested sufficiently to be put into general use, but early results with rabbit and human sera have been very promising.

Cyclamate Ban Is Questioned

Roy M. Pitkin, M.D., an associate professor of obstetrics and gynecology at the U. of I. College of Medicine, contends that there is no definite evidence to support HEW Secretary Robert Finch's ban on the use of cyclamates in food products. Dr. Pitkin and Lloyd J. Filer, M.D., a professor of Pediatrics, have been studying cyclamates for several months, and recently received grants for research into the transfer of cyclamate across the placenta to the developing fetus, and excretion of cyclamate in the mother's milk.

Until Secretary Finch cited bladder cancer in rats, Dr. Pitkin points out, the only observed adverse effect was that some people suffered loosening of the bowels from an intake of five or more grams of cyclamate per day. That is equivalent to an intake of 15 bottles of artificially sweetened pop each day, he estimated.

"About 40 per cent of the cyclamate taken by mouth is absorbed and excreted in the urine," Dr. Pitkin explains. "In the test tube, scientists have shown an increased disruption of chromosomes, but aspirin and caffeine also do this under similar conditions, yet are considered 'safe' drugs and are taken routinely by the greater part of the population."

U. of I. researchers have experimented upon rhesus monkeys, whose placental and fetal physiology are very similar to that of human beings. "When we infused cyclamate for two hours, we found that the level in the monkey mother's blood rose, but the kidneys quickly excreted the cyclamate and eliminated almost all of it soon after the infusion stopped. At the same time, the level in the fetus rose so that the overall average level was about 25 per cent of that in the mother's blood. However the level in the fetal blood remained elevated longer than in the maternal blood."

Dr. Pitkin concludes that if there is any danger from cyclamate, the fetus is threatened more than is the mother. But he points out that a great deal more investigative work needs to be done: "One of the most important unanswered questions is what the patterns of human cyclamate consumption are, and also absorption, distribution in body tissues and excretion need to be studied in more detail."

University Hospitals DRUG LETTER

Digitalis: Continuing Problems Related to Its Use

R. P. MAHONEY, M.D.

The first account of digitalis toxicity was presented in 1785 when Withering reported: "Foxglove when given in very large and quickly repeated doses occasions sickness, vomiting, purging, dizziness, confused vision, objects appearing green or yellow, increased secretion of urine with frequent motions to part with it and sometimes inability to retain it, slow pulse even as slow as 35 in a minute, cold sweats, convulsions, syncope and death."[1]

Despite subsequent clear definitions of the pharmacologic properties of and therapeutic indications for digitalis, the medical literature continues to swell with accounts of digitalis intoxication. Recent studies by Sodeman[3] and Rodensky[8] have cited a 6-20 per cent incidence of morbidity due to digitalis, with 6 per cent mortality. (Eleven per cent of the deaths were related directly to the drugs.) These sobering statistics reflect an increased awareness of the entity, and the increasing longevity of people with cardiovascular disease, the changing patterns in the administration of glycosides, and an increased utilization of diuretics and diet in the treatment of cardiac disease.

Guidelines for the use of various glycosides of digitalis based upon onset of action, absorption, metabolism and duration of action can be found in past and recent literature.[2, 9, 19, 20] The problem of digitalis intoxication concerns indications, relative and absolute contraindications, recognition of toxicity and the determination of digitalization status, which is an elusive thing. Hazards relate to overdosage resulting from the type, dose preparation, route of administration, absorption, distribution, metabolism and excretion.

Since the toxic effects are similar for all glycosides, attention is directed toward the areas of relative and absolute overdosage. Guideposts for optimal digitalization rely heavily on clinical evaluation of the patient, since biochemical assays are neither practical nor generally available. The decrease in heart rate, a diuretic response, clearing of pulmonary edema, a fall in venous pressure and a decrease in heart size are indicators of an effective level of digitalization. When confusion persists, various diagnostic tests have been described as helpful. They include vagal stimulation by carotid sinus massage (Lown-Levine), the acetyl strophanthin test, chelation of calcium by EDTA,[10] potassium administration,[4] the neostigmine test,[11] electrical stimulation[16] and continued cautious use of rapid-acting glycosides.[19, 20]

In the recent literature emphasis has been placed on the recognition of clinical conditions that modify the therapeutic index of digitalis:

1. Coronary artery disease (most common), with or without angina or congestive heart failure.
2. Myocarditis, myocardiopathy, idiopathic, toxicity, etc.
3. Hyperthyroidism, myxedema.
4. Arrhythmias such as ventricular tachycardia, paroxysmal atrial tachycardia with A-V block and complete heart block. (If ventricular tachycardia is not due to digitalis, the response to digitalis, if any, is usually poor, and it is not recommended for this arrhythmia.)
5. Chronic obstructive lung disease, hypoxic states, cor pulmonale.
6. Renal insufficiency, acute and chronic (from 60 to 80 per cent of glycoside excreted in the urine).
7. Hepatic disease (defective degradation).
8. Fluid and electrolyte alteration: "crash diuresis," K^+, Mg^{++} losses, Na^+ restrictive diets.
9. Cardiac surgery (postoperative hypoxia a factor).
10. Age (Fifty-nine per cent of toxic symptoms in a large series were in patients over 60; 7 per cent were in patients under 40).
11. Drugs: sympathomimetic amines, reserpine, quinidine, calcium, potassium, magnesium, procainamide.

The manifestations of digitalis toxicity can be divided into well known categories that deserve commitment to memory:

Cardiac: simulation of every known arrhythmia including atrial fibrillation and, rarely, flutter. Premature ventricular systoles are commonest; others include the Wenckebach phenomenon, paroxysmal A-V nodal tachycardia. Ventricular

Dr. Mahoney is a fellow in internal medicine at the U. of I. College of Medicine. This article appeared initially in the October, 1969, issue of DRUG LETTER, a monthly intramural publication of University Hospitals, Iowa City. It is published here at the suggestion of the Clinical Pharmacology Committee at the University, and with the permission of the author.

tachycardia is the commonest cause of death; myocardial necrosis also occurs.

Gastrointestinal: vomiting, anorexia, sialorrhea, diarrhea, abdominal cramps, hemorrhagic intestinal necrosis.

Neurologic: headache, fatigue malaise, drowsiness, early signs of generalized muscle weakness, neuralgic pain in lower third of face, lumbar pain, paresthesias, confusion, aphasia, convulsions, hallucinations (digitalis delirium, particularly in the elderly), vertigo.

Ocular: amblyopia, "white vision," white borders around dark objects, chromatopsia (yellow and green are commonest, though red, blue and brown have been reported), transient diplopia, scotomata, retrobulbar neuritis (rare), ocular paresis, nystagmus.

Dermatologic: skin rashes, urticaria, "scarletina" not responding to antihistamines or steroids.

Hematologic: eosinophilia, thrombocytopenic purpura.

Endocrine: gynecomastia.

General principles that have been proposed as means of avoiding the above include avoidance of single-dose digitalization, avoidance of parenteral administration whenever possible, use of the largest dose first when loading doses are given or digitalization without a loading dose, and relying on cumulative effects of a maintenance dose. The practice of issuing advance orders during the digitalization procedure is to be condemned. With increasing clarification of digitalis kinetics, other important clinical guidelines have been offered. Of particular importance is the recent report by Jelliffe[17] in which specific loading and maintenance doses of digoxin were recommended, depending upon variable reductions in renal function.

Because the state of digitalization continues to defy precise measurement, we must rely upon sound clinical judgment, knowledge of the pharmacology of digitalis, familiarity with the spectrum of toxicity and a program of continuous reassessment of need. Only thus can progress be made in reducing the incidence of morbidity and mortality.

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College of Medicine Seeks Preceptor Volunteers

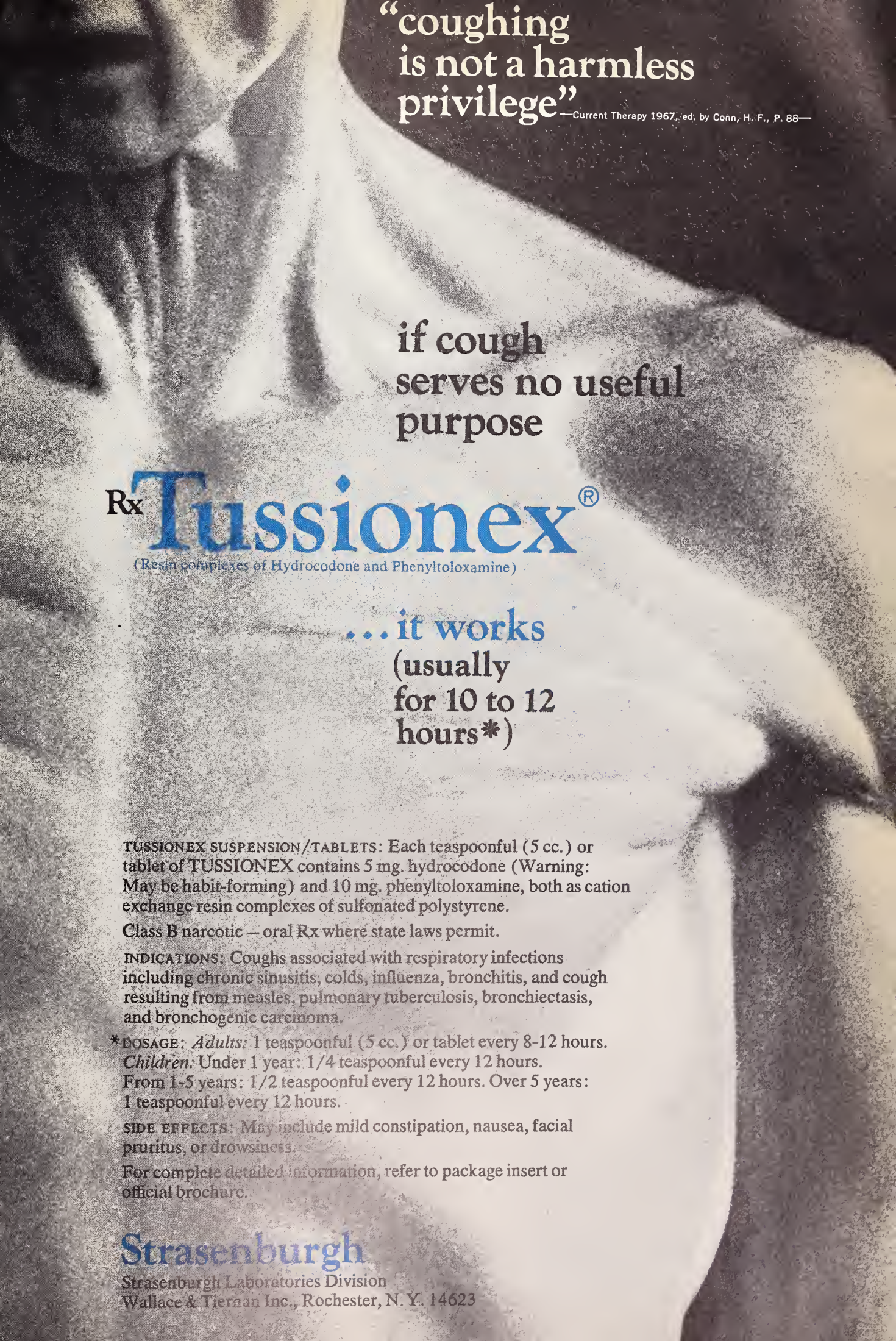
Under the Preceptorship Program at the U. of I. College of Medicine, each senior student is required to spend four weeks with an Iowa physician, observing his work. Charles A. White, M.D., a professor of obstetrics and gynecology and chairman of the Preceptorship Committee at the University, is anxious to update the list of available preceptors. He would very much appreciate hearing from IMS members who wish to participate. Volunteers are asked to let him know something about their respective communities and types of practice. In turn, he will send relevant information about the Program.

Changed Format for GP Refresher Course

The dates for this winter's GP Refresher Course, in Iowa City, are Tuesday, February 10, to Friday, February 13. The complete schedule will appear in the January JOURNAL.

The changes in format are to include:

- More multi-perspective presentations
- Questions and answers following each lecture
- Clinical movies during lunch breaks
- Optional "lunch with the experts"
- Published syllabus of presentations
- Self-scoring pre- and post-conference quizzes
- Practice tests for men planning to take Family Practice Board exams.



TUSSIONEX SUSPENSION/TABLETS: Each teaspoonful (5 cc.) or tablet of TUSSIONEX contains 5 mg. hydrocodone (Warning: May be habit-forming) and 10 mg. phenyltoloxamine, both as cation exchange resin complexes of sulfonated polystyrene.

Class B narcotic — oral Rx where state laws permit.

INDICATIONS: Coughs associated with respiratory infections including chronic sinusitis, colds, influenza, bronchitis, and cough resulting from measles, pulmonary tuberculosis, bronchiectasis, and bronchogenic carcinoma.

*DOSAGE: *Adults:* 1 teaspoonful (5 cc.) or tablet every 8-12 hours. *Children:* Under 1 year: 1/4 teaspoonful every 12 hours. From 1-5 years: 1/2 teaspoonful every 12 hours. Over 5 years: 1 teaspoonful every 12 hours.

SIDE EFFECTS: May include mild constipation, nausea, facial pruritus, or drowsiness.

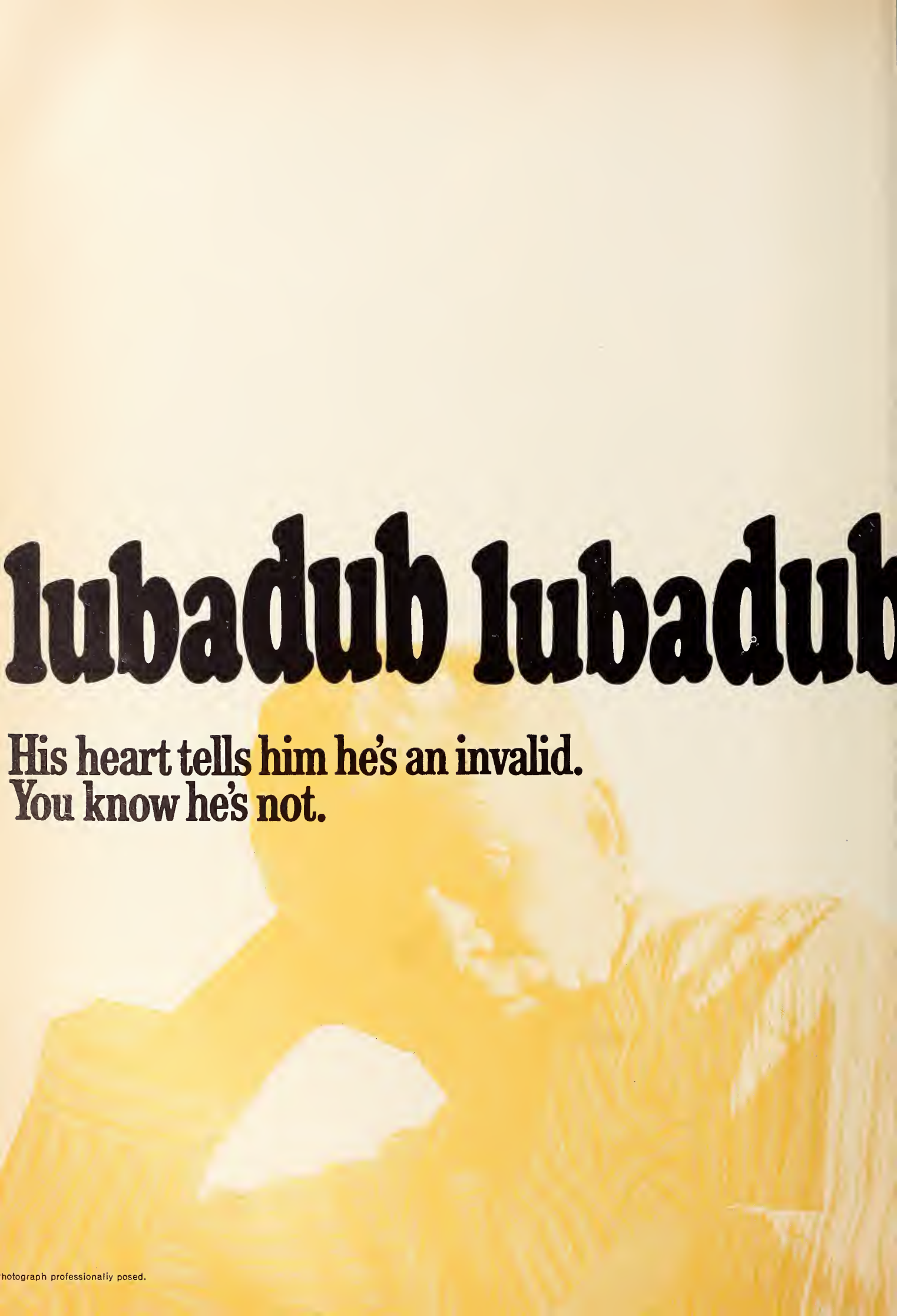
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His heart tells him he's an invalid.
You know he's not.



hotograph professionally posed.

Contraindications: History of sensitivity to meprobamate.

Important Precautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use has been reported to result in dependence or habituation in susceptible persons, as alcoholics, ex-addicts, and other severe psychoneurotics. After prolonged excessive dosage, reduce dosage gradually to avoid possibly severe withdrawal reactions. Abrupt discontinuance of excessive doses has sometimes resulted in epileptiform seizures.

Warn patients of possible reduced alcohol tolerance, with resultant slowing of reaction time and impairment of judgment and coordination.

Reduce dose if drowsiness, ataxia or visual disturbance occurs; if persistent, patients should not operate vehicles or dangerous machinery.

Side Effects include drowsiness, usually transient; if persistent and associated with ataxia, usually responds to dose reduction; occasionally concomitant CNS stimulants (amphetamine, mephentermine sulfate) are desirable. Allergic or idiosyncratic reactions are rare, but such reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Previous history of allergy may or may not be related to incidence of reactions. Mild reactions are characterized by itchy urticarial or erythematous maculopapular rash, generalized or confined to groin. Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema and fever have been reported. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. If allergic reaction occurs, meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis,

ibadubdub lubadi

Anxiety is expected in the cardiovascular patient. A little may even be desirable.

But when anxiety is exaggerated . . . when it interferes with sleep . . . when it aggravates cardiovascular symptoms, your help may be needed.

Naturally, you'll want to reassure the patient.

And perhaps prescribe Equanil (meprobamate) as adjunctive therapy. It helps relieve anxiety and tension specifically, yet gently.

Almost 15 years' use has shown that Equanil is usually well tolerated as well as effective. Side effects are generally limited to transient drowsiness; serious, therapy-interrupting side effects are rare.

stomatitis and proctitis (1 case) and hyperthermia. Treat symptomatically as with epinephrine, antihistamine and possibly hydrocortisone. Aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia have occurred rarely, almost always in presence of known toxic agents. A few cases of leukopenia, usually transient, have been reported on continuous administration.

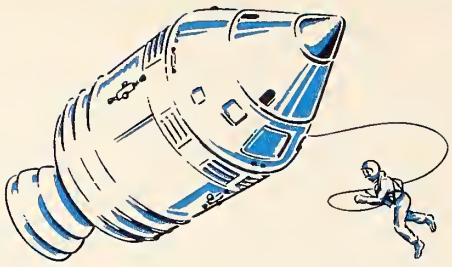
Meprobamate may sometimes precipitate grand mal attacks in patients susceptible to both grand and petit mal. Extremely large doses can produce rhythmic fast activity in the cortical pattern. Impairment of accommodation and visual acuity has been reported rarely. After excessive dosage for weeks or months, withdraw gradually (1 or 2 weeks) to avoid recurrence of pretreatment symptoms (insomnia, severe anxiety, anorexia). Abrupt discontinuance of excessive doses has sometimes resulted in vomiting, ataxia, tremors, muscle twitching and epileptiform seizures. Prescribe very cautiously and in small amounts for patients with suicidal tendencies. Suicidal attempts have resulted in coma, shock, vasomotor and respiratory collapse and anuria. Excessive doses have resulted in prompt sleep; reduction of blood pressure, pulse and respiratory rates to basal levels; and occasionally hyperventilation. Treat with immediate gastric lavage and appropriate symptomatic therapy. (CNS stimulants and pressor amines as indicated.) Doses above 2400 mg./day are not recommended.

Composition: Tablets, 200 mg. and 400 mg. meprobamate. Coated Tablets, WYSEALS® EQUANIL (meprobamate) 400 mg. (All tablets also available in REDIPAK® [strip pack], Wyeth.) Continuous-Release Capsules, EQUANIL L-A (meprobamate) 400 mg.

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Expanding Home-Health Services

RONALD D. ECKOFF, M.D., M.P.H.

In the November, 1969, issue of the JOURNAL an article by Thelma Luther, R.N., director of the Division of Nursing, related some of the history of public health nursing in Iowa, and the changes that have occurred in it over the years. She pointed out that there has recently been a considerable expansion of home-care services. This article will describe those home-care services in greater detail. Much of home care for the ill or injured is in no way related to the Medicare program, but this article will deal primarily with the Medicare requirements in this regard, and the work of agencies that do such work under Medicare.

Home-care services are paid for by Medicare only when they are provided to eligible persons by certified home health agencies. For certification, a home health agency must meet the 24 Conditions of Participation for Home Health Agencies, just as hospitals and extended-care facilities must meet their respective requirements if they are to participate in the Medicare program. Some of the basic conditions for home health agencies are as follows:

The agencies' primary functions are to include the provision of skilled nursing services and other therapeutic attention on a visiting basis in the patient's home or other place of residence. In addition to skilled nursing services, the agency must provide at least one of the following: physical, speech or occupational therapy; medical social services; or home health aide services. The home health agency designates a physician or registered nurse to supervise its performance in providing home health services in accordance with the orders of the patients' physicians and under plans of treatment established by those physicians.

The agency's policies covering skilled nursing and other therapeutic services and the health aspects of its other policies are established with the approval of, and subject to regular review by, a group of professional people who include a licensed physician and a registered nurse. The agency has written requirements regarding qualifications, responsibilities and conditions of employment for each type of personnel (including licensure, where required by state law). The agency has procedures which provide for a systematic evaluation of its program at least once every two years. Skilled nursing service is provided by, or under the supervision of, registered nurses currently licensed by the state. The home health agency has written policies to be followed in determining the desirability and practicality of accepting various sorts of patients for care. Such decisions are based on medical, nursing and social information provided by the patient's physician, by institutional personnel and by the staff of the home health agency. Original orders from a physician and all changes in orders for the administration of dangerous drugs and narcotics must be signed by the physician and incorporated in the patient's record maintained by the agency. All other orders or changes in orders are signed either by the physician or by a registered nurse in the agency if the instructions have been given to her orally. For each patient the home health agency maintains a clinical record covering the services which the agency provides directly and those that it furnishes through arrangements with another agency. This record contains pertinent past and current medical, nursing, social and other therapeutic information, including the plan of treatment.

Other conditions relate to agreements between agencies, the provision of other professional services, and the selection, training and supervision of home health aides, if any are utilized.

On July 1, 1966, when Medicare began in Iowa, 15 home health agencies were certified. They served areas having a total population of 1,100,000, or 41 per cent of the population of the state. By July 1, 1967, there were 20 certified home health agencies serving areas containing 1,250,000 people, or 45 per cent of all Iowans. Before then, all certified agencies were visiting-nurse associations or other voluntary or combination agencies, because according to Iowa law, no fees could be charged for the services of county public health nurses. In June, 1967, the General Assembly created county boards of health and made them the employers of county public health nurses. The new law also allowed county public health nursing services to charge fees. Since that time a number of counties have been certified to render such services under Medicare, and others are working toward meeting the Conditions of Participation. On November 1, 1969, there were 37 certified home health agencies. As of that time, 1,600,000, or 57 per

cent, of the people in the state lived in areas served by certified home health agencies. Figure 1 shows the successive increases in coverage since the beginning of Medicare. In addition, 44 counties have public health nursing services that are not yet certified, and another 29 per cent of Iowans live in those areas. Still, there are 21 counties containing 14 per cent of the state's population which have no public health nursing services.

As indicated previously, the certified home health agency must provide skilled nursing service and at least one of five other kinds of attention—physical therapy, occupational therapy, speech therapy, medical social service and home health aide service. It is hoped that most home health agencies eventually will provide several services. At present, however, 53.5 per cent of the certified home health agencies in the nation and 62 per cent of those in Iowa provide no more than skilled nursing and one additional service. The commonest additional service in Iowa is that of home health aides, which 78 per cent of certified agencies in Iowa provide. Table 1 lists the certified home health agencies in Iowa, and indicates what service(s) each provides in addition to skilled nursing. Table 2 provides a summary of those additional services, and a comparison with national figures. A number of certifying agencies have added some services as they have seen the need for them and/or as money has become available to finance them.

In addition to the certification requirements

TABLE 1

MEDICARE-CERTIFIED HOME HEALTH AGENCIES OFFERING SERVICES IN ADDITION TO NURSING
November 1, 1969

Name of Agency	Physical Therapy	Speech Therapy	Occupational Therapy	Medical Social Worker	Home Health Aides
Appanoose County Homemakers Health Service					X
Black Hawk County Department of Health	X				X
Waterloo Visiting Nurse Association		X			X
Boone County Public Health Nursing Service					X
Buchanan County Home Health Agency	X				X
Mason City Public Health Nursing Association	X				
Clay County Public Health Nursing Service					X
Clinton-Camanche Visiting Nurse Association	X	X			
Dallas County Public Health Nursing Service					X
Decatur County Home Health Agency					X
Burlington Visiting Nurse Association	X		X		X
Des Moines County Board of Health					X
Dubuque Visiting Nurse Association	X				
Grundy County Public Health Nursing Service					X
Jasper County Public Health Nursing Service	X				X
Iowa City Visiting Nurse Association	X				
Keokuk Visiting Nurse Association					X
Public Health Nursing Association (Linn Co.)	X				X
Lucas County Home Health Agency					X
Earlham Care Program	X				X
Marion County Board of Health, Public Health Nursing Service					X
Marshalltown Community Nursing Service	X				X
Monroe County Public Health Nursing Service	X				X
Muscatine Public Health Nursing Association					X
Public Health Nursing Association of Des Moines	X	X			X
Council Bluffs Visiting Nurse Association					X
Davenport Visiting Nurse Association	X				X
Ames Visiting Nurse Service					X
Story County Public Health Nursing Service	X	X			X
Benton, Iowa, Poweshiek, and Tama County Health Services					X
Wapello County Public Health Nursing Service	X				
Warren County Public Health Nursing Service					X
Wayne County Home Health Agency					X
Winnebago County Home Care Program	X				
Winneshiek County Public Health Nursing Service	X				
Fort Dodge Community Nursing Service					X
Sioux City-Woodbury County Health Department, Nursing Division	X	X	X	X	

that the home health agency must meet, there of course are requirements that the patient must satisfy in order to have his home health care paid for by Medicare. Obviously, he must be enrolled in the program. Medicare may pay for home health services from a home health agency under either hospital insurance (Part A) or medical insurance Part (B). *Under both Part A and Part B: (1) the patient must be "homebound"; (2) the doctor must certify that the home health services are medically necessary; and (3) the doctor must order a specific plan of care for the home health agency to follow.* He also must review the plan of care periodically, and make necessary changes. In making an adequate review of his plan, the doctor must see the patient and evaluate his current needs.

Medicare Part A can pay the total cost of up to 100 medically necessary home health "visits" after the beginning of one benefit period and before the start of another, provided (1) the patient was previously in a qualifying hospital for at least three days in succession; (2) a plan of care was established by the patient's doctor within 14 days following the patient's discharge from the hospital, or following a covered stay in an extended care facility; (3) the care is necessary for the further treatment of a condition for which treatment was provided in the hospital or extended care facility; and (4) the "visits" are made within 12 months after discharge from the hospital or extended care facility.

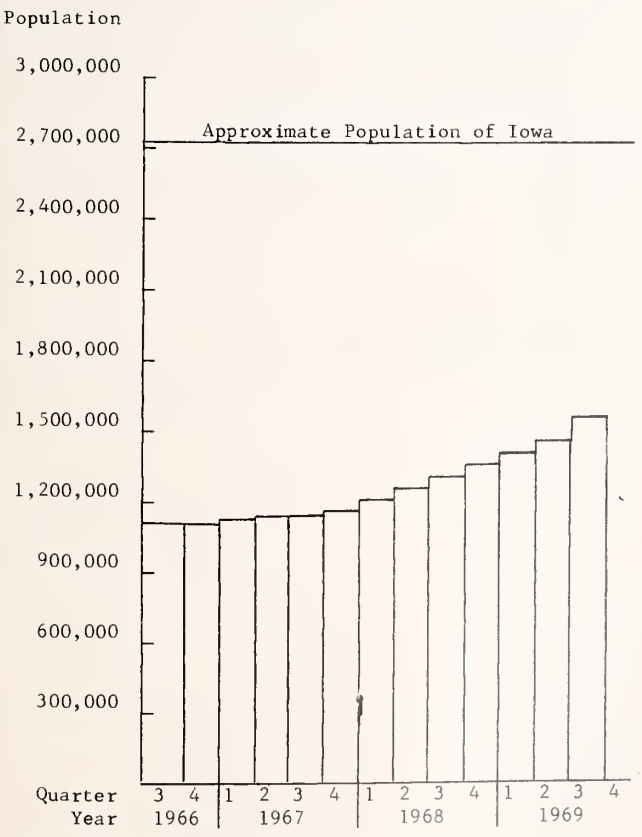


Figure 1. Population of areas served by certified home health agencies July, 1966 to September, 1969.

TABLE 2

MEDICARE-CERTIFIED HOME HEALTH AGENCIES PROVIDING ADDITIONAL SERVICES

November 1, 1969

	IOWA		U.S.
	Number	Per cent	Per cent
Physical Therapy	19	51	73
Occupational Therapy	2	5	16
Speech Therapy	5	14	22
Medical Social Services	1	3	20
Home Health Aide	29	78	48

If the conditions of Part A have not been met, but if the patient is enrolled in Part B and meets the three basic conditions above, then Part B can pay 80 per cent of the cost, after the $50 annual deductible, for up to 100 medically necessary home-health "visits" in each calendar year.

The certified home health agencies have had several meetings and other communications with us in which we have tried to show them how to determine which patients meet the requirements under either Part A or Part B. The discussions have covered such terms as "homebound," "medical necessity," "visits," etc. It is hoped that physicians will consult with home health agency personnel regarding the sorts of patients who qualify for each of the services. All of the health professionals involved recognize that there are many instances where patients desperately need nursing or other home care services which cannot be paid for by Medicare because of one or more disqualifications. If the non-qualifying patients are to be cared for in the Medicare program, there must be changes in the law and in the overall regulations.

As in all other parts of the health-care system, physicians play a key role in organizing and delivering home health services. Physicians serve on the governing boards of home health agencies, whether private (visiting-nurse associations) or public (public health nurses under county boards of health). Physicians must be active in the advisory groups which determine agency policies, and they should be involved in evaluations of agency performance. Physicians order plans of treatment for the patients who are to receive home health service, and they must maintain close enough contact both with the patients and with the agency to make certain that the services continue medically necessary and appropriate. Physicians must have good two-way communication with the home health agency so that the patient always receives appropriate care and so that the service is paid for by Medicare when it should be. One or another of those things could happen simply as a result of a neglect to sign orders at proper times.

Home-care services are a part of the total medical care plan. They are not simply a substitute for

hospital, nursing home or other institutional care. In many situations care in the home is most appropriate. The home setting can promote a feeling of security and happiness, and thus promote recovery and rehabilitation. An appropriately utilized home-care program also can result in a reduction of the total cost of illness.

Much progress has been made during recent years in the expansion of home care in Iowa. Staffs have been increased, services have been added in existing agencies, and agencies have been started or their services have been made available in areas not previously served. It is clear, however, that much still is left to do before we reach a point where all Iowans have access to appropriate home health services. With active support from physicians, we shall continue to move toward that goal.

Will Banning DDT Do More Good Than Harm?

Banning the use of DDT in Iowa will not automatically eliminate problems associated with it, even though other pesticides can be substituted for it, according to Keith R. Long, Ph.D. of the U. of I. Institute of Agricultural Medicine. "Residues of DDT are here already in the form of metabolic byproducts in animals and plants eaten by people," he has explained. "We know that the general population has measurable amounts of DDT residues in blood and tissues, but we do not know what effects those residues may cause. We also lack complete information about their routes through the environment.

He supports the scientific advisory commission approach recently recommended by a committee of the Iowa Legislature: "The commission can guide legislation on regulation of pesticides by applying present knowledge and knowledge from research now being performed.

"It is reasonably certain that we shall have to deal with each pesticide on the basis of a cost: benefit ratio," Dr. Long points out. A cost: benefit ratio balances harmful and beneficial effects, both economic and ecologic. For example, he cites the overwhelmingly beneficial effects of DDT in areas infested with malaria-carrying mosquitoes, and says there is no completely satisfactory substitute for DDT in combatting those insects.

In Iowa, he concedes, the insect pests controlled by DDT can be combatted effectively by other pesticides, but much less is known about tissue levels and overall effects on health produced by some of those other agents. "The plan announced recently by Secretary Robert Finch, of The HEW Department, virtually to eliminate the use of DDT and the related compound DDD except for specific needs, over the next two years, is completely justified on the basis of the cost: benefit ratio," he says.

Morbidity Report for Month of October, 1969

Diseases	Oct. 1969	1969 to Date	1968 to Date	Most October Cases Reported From These Counties
Brucellosis	1	35	27	Dubuque
Chickenpox	316	3,777	5,414	Black Hawk, Chickasaw, Clayton, Polk
Encephalitis,				
viral	2	12	0	Dubuque, Pottawattamie
type unspecified	1*	4	5	Polk
German measles	60	2,324	1,842	Black Hawk, Clay
Gonorrhea	542	3,643	3,311	Scattered
Impetigo	180	524	516	Black Hawk, Polk
Infectious hepatitis	30	334	430	Polk, Scott
Infectious mononucelosis	50	452	328	Black Hawk, Linn, Polk
Leptospirosis	1*	3	8	Dallas
Malaria, imported				
P. vivax	3*	14	7	Allamakee, Montgomery, Woodbury
Measles	4*	338	104	Appanoose, Jasper, Marion, Polk
Meningitis,				
H. influenzae	1	10	4	Bremer
meningococcal	1	19	55	Woodbury
Mumps	152	4,145	11,055	Black Hawk, Bremer
Pneumonia	52	404	250	Pottawattamie
Rabies in Animals	12	83	112	Scattered
Rheumatic fever	1	30	23	Cherokee
Salmonellosis				
S. java	1	3	0	Dubuque
S. newport	2	17	7	Story, Woodbury
S. oslo	1	1	0	Scott
S. panama	3	4	2	Linn, Poweshiek, Wapello
S. saint paul	3	5	1	Dubuque
S. thompson	1	2	1	Polk
S. typhimurium	3	31	22	Pottawattamie, Story, Woodbury
S. typhimurium var. copenhagen	4	12	1	Dubuque (2), Polk, Wapello
Group B	1	14	5	Dubuque
Shigellosis,				
S. sonnei	20	84	45	Dallas
Streptococcal infections	503	3,760	4,493	Jefferson, Johnson
Syphilis	78	614	612	Scattered
Tuberculosis	9	102	99	Scattered
Whooping cough	6	13	62	Des Moines

* Delayed



fast start on a short therapeutic course

Sterazolidin®

50 mg. phenylbutazone
1.25 mg. prednisone
100 mg. dried aluminum hydroxide gel
150 mg. magnesium trisilicate

Prompt anti-inflammatory action for...
relieving pain and stiffness
reducing tenderness and swelling
restoring joint movement
in bursitis, synovitis, tenosynovitis
and acute fibrositis.

Total treatment time: 7 days
Usual dosage: 2 capsules t.i.d.

Sterazolidin is valuable in the treatment of acute rheumatic conditions so often refractory to routine therapy. However, it is a potent drug, not a simple analgesic. Therefore, Sterazolidin should never be administered casually. For complete details on dosage, adverse reactions, contraindications and precautions, please see the following two pages.

Sterazolidin®

Each capsule contains:

Butazolidin®, brand of phenylbutazone	**50 mg.**
prednisone	**1.25 mg.**
dried aluminum hydroxide gel	**100 mg.**
magnesium trisilicate	**150 mg.**

Antiarthritic
Anti-Inflammatory

Capsules

Important Note Butazolidin, brand of phenylbutazone, and prednisone, the active ingredients of Sterazolidin, are both potent drugs; the pharmacologic action of each should be borne in mind when Sterazolidin is prescribed. Sterazolidin combines anti-inflammatory, analgesic, antipyretic, and antiallergic properties and cannot be considered a simple analgesic and should never be administered casually. The usual warnings, precautions and contraindications associated with Butazolidin, brand of phenylbutazone, therapy and steroids apply to Sterazolidin.

Indications: *Chronic treatment of:* rheumatoid arthritis, rheumatoid spondylitis, osteoarthritis; and also treatment of acute rheumatic conditions such as bursitis, synovitis, tenosynovitis, various forms of acute fibrositis, and acute gouty arthritis.

Contraindications
Usually absolute: active, questionably healed or suspected tuberculosis, herpes simplex ophthalmia, acute psychoses or severe psychoneuroses, history of blood dyscrasia, the frankly senile patient, and active peptic ulcer.

Relative: exanthematous diseases, particularly varicella and fungal diseases (for other viral diseases, the physician must weigh the possible undesirable effects against anticipated clinical improvement), diverticulitis, recovery phase after gastrointestinal surgery, any condition complicated by cardiovascular disease, renal insufficiency, moderate or severe diabetes mellitus, thrombophlebitis, osteoporosis, convulsive disorders, thyroid disease, history of drug allergy, history of peptic ulcer, hypertension, the elderly patient, psychotic tendencies, pregnancy, except in severe disease (the safety of Sterazolidin in pregnancy has not been established), edema, and hepatic damage.

Its use in conjunction with other potent chemotherapeutic agents may greatly increase the possibility of toxic reaction, and this practice is, therefore, inadvisable. Large doses are contraindicated in patients with glaucoma.

Warning Coumarin-type anticoagulants depress prothrombin activity. This is accentuated in some cases when Butazolidin, brand of phenylbutazone, is simultaneously employed in treatment; occasional instances of severe bleeding have been reported. Patients receiving coumarin-type anticoagulants should be very carefully followed for evidence of excessive increase of prothrombin time when Sterazolidin is added to this regimen. Anticoagulant therapy can then be properly adjusted, if necessary. When prescribed alone, Sterazolidin has not been shown to influence prothrombin activity. Persistent or severe dyspepsia may be indicative of peptic ulceration. In these instances, upper gastrointestinal x-ray diagnostic tests should be performed if the drug is continued. Pyrazole compounds, such as phenylbutazone, may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Patients receiving such concomitant therapy, therefore, should be carefully observed for this effect.

Precautions and Adverse Reactions *Gluco-Corticoid Activity:* In some diabetic patients on prednisone, the insulin requirements may be increased. It is advisable to observe diabetic patients carefully during the treatment period. Since gluco-corticoids may unmask latent diabetes, all patients should be observed for this effect.

Electrolytes: Many patients receiving prednisone in average amounts show some loss of sodium, with little or no loss of potassium. With continued high dosage, however, sodium retention and potassium loss have been observed. Butazolidin, brand of phenylbutazone, has a definite tendency to produce sodium retention and hence, edema, particularly in the older age group. Elderly patients or those with hypertension, cardiac defect or renal dysfunction should therefore use Sterazolidin with special caution and the drug should be discontinued if edema develops. Developme of edema may be prevented or minimized withholding salt from the diet. Sodium ret tion may be counteracted with oral diureti

Nitrogen: With the recommended dosage Sterazolidin, the possibility of nitrogen lo remote. However, it is recommended that tients receive adequate protein in their di Osteoporosis or spontaneous fractures m occur with prolonged use of prednisone.

Gastrointestinal Tract: Clinical and anima studies do not indicate that the ulcerogeni activity of prednisone or Butazolidin, bran phenylbutazone, is enhanced in the combi tion. To overcome gastrointestinal discom and occasional eructation in sensitive pati the medication is best taken at mealtime o with milk; Sterazolidin contains antacid co ponents to minimize the incidence of gast complaints. All patients should be warned report immediately the occurrence of blac tarry stools. The development of anemia sl immediately suggest gastrointestinal blee

Blood Elements: Patients receiving predni exhibit an eosinophil response similar to t seen with other steroids. During the initial weeks of treatment, Butazolidin, brand of phenylbutazone, usually causes some deg of hemodilution and resultant lowering of t red cell count. This phenomenon does not represent a true anemia and is not indicati of intolerance, but must be distinguished fr true anemia secondary to gastrointestinal bleeding or other causes. With the extensi use of Butazolidin, brand of phenylbutazon rare cases of agranulocytosis have occurr (ratio less than 1 per 200,000 patients). It should also be noted that agranulocytosis occur suddenly in spite of regular, repeate normal white counts. Several cases of leukemia and leukemoid reactions have been reported with Butazolidin, brand of phenylbutazone, therapy. Although these reaction cannot be definitely attributed to this drug, possibility of a causal relationship cannot b excluded. It should also be recognized that arthritic-type pains are sometimes the pres ing symptom of leukemia. Accordingly, all patients receiving Sterazolidin should have

It's aggressive against acute arthritic pain and inflammation.



And, we want you to know all about it

e periodic blood counts before and
g therapy. Any unexpected, significant
ge in the total white count, relative de-
e in granulocytes, or appearance of
ture forms should be regarded as a signal
mediate cessation of therapy and institu-
f appropriate countermeasures. Thrombo-
enic purpura and aplastic anemia must
be considered possible side effects of
by with Butazolidin, brand of phenyl-
one.

s: Surgery: Prolonged use of prednisone
cause a potentially critical degree of
nocortical insufficiency which may persist
after cessation of prednisone therapy.
efore, If a patient is subjected to signifi-
stress, such as surgery or trauma, either
g Sterazolidin therapy or within one year
cessation of therapy, it is advisable to
nister additional steroid and/or ACTH for
uration of the stress. Delayed wound
ng may also occur in patients on pro-
ed therapy.

tions: High or prolonged doses of
nisone interfere with the usual immune
anisms against bacterial and viral infec-
and may promote their dissemination. In
ral, steroid treatment should not be given
e presence of infections unless appropri-
ntibiotic therapy is instituted at the same
Systemic and localized infection compli-
ns during hormone therapy have been ob-
ed, including fulminating pneumonia,
culosis, moniliasis and aspergillosis.
ld intercurrent infection develop, indi-
d antibiotic therapy must be initiated
ptly. Every patient who is to receive
zolidin for any length of time should be
oughly examined, including chest x-ray,
e presence of pulmonary or extrapulmo-
tuberculosis.

nonal Imbalance: Gluco-corticoids, in pro-
ed dosage, may cause manifestations of
rcortisonism or Cushing's syndrome, such
oonface, abnormal fat deposits, mental
rbances, muscle weakness and atrophy,
eous striae, acne, ecchymoses, hirsutism,
strual disturbances, edema, osteoporosis
spontaneous fractures, and hypertension.
, by suppressing adrenocortical function,
nic prednisone therapy may cause some
ee of atrophy of the adrenal glands. There-
if Sterazolidin is to be discontinued, the
oid dosage should be tapered off gradu-
ally. In addition, it may be advisable to stimulate the adrenal glands with ACTH. Prednisone induces a prompt decrease in the urinary 17-ketosteroids. Pretreatment levels are usually regained within 7 to 14 days after cessation of therapy. Under conditions of long-term administration, a small percentage of patients on phenylbutazone may develop varying degrees of reversible thyroid hyperplasia.

Allergic Response: Development of drug rash should alert the physician to promptly discontinue the drug. The presence of prednisone in Sterazolidin may reduce the degree of allergic response; nevertheless, the same cautious attitude must be preserved with Sterazolidin as with Butazolidin, brand of phenylbutazone, if allergic manifestations occur. Other adverse reactions that have been observed with glucocorticoid therapy include: excessive appetite and weight gain, hyperidrosis, pigmentation, dry,scaly skin, thinning scalp hair, tachycardia, thrombophlebitis, headache, neuropathy (including paresthesias and neuritis), diffuse vasculitis similar to periarteritis nodosa, subcapsular cataracts, impaired renal function, lupus erythematosus-like changes, convulsions, insomnia, abdominal distention, aseptic necrosis of the femoral head, acute pancreatitis and ulcerative esophagitis.

Miscellaneous: Stomatitis and, rarely, salivary gland enlargement occasionally require the interruption of treatment with Butazolidin, brand of phenylbutazone. Adoption of a lower dosage schedule and the institution of strict oral hygiene sometimes prevent recurrence of lesions. The infrequent occurrence of such subjective sensations as vertigo or languor during therapy with Butazolidin, brand of phenylbutazone, is seldom a serious or significant complication. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hepatitis and jaundice, hypersensitivity angiitis, pericarditis and several cases of anura and hematuria. Patients should be carefully evaluated before treatment is started and those receiving Sterazolidin must remain under close medical supervision to guard against undesirable reactions such as those described. They should be instructed to report immediately the occurrence of fever, sore throat, lesions in the mouth, or black or tarry stools. It is recommended that periodic examinations of the patient include:

1. Verbal and physical examination, including blood pressure and appraisal of the cardiovascular, digestive and skeletal systems, for indications of toxic reaction.
2. Complete blood count (at weekly intervals during the first month), urinalysis, x-ray and electrolyte studies, as indicated.
3. Check of patient's weight to detect significant water retention.

Dosage Dosage should be individualized. The following general rules should be observed:

In acute therapy, dosage *should not exceed* 12 capsules on the first day and 6 to 8 capsules on succeeding days. Treatment for more than 7 days is rarely necessary. When therapy extends beyond one week, dosage should not exceed 6 capsules a day.

In chronic therapy, dosage *should not exceed* 6 capsules a day and should be tapered off gradually to establish the minimum maintenance level at which the patient still feels reasonably comfortable. A trial period of one week of therapy is considered adequate to determine the therapeutic effect of the drug. In the absence of a favorable response, therapy should be discontinued.

When switching from chronic high steroid therapy to Sterazolidin, the importance of gradual reduction of steroid dosage cannot be overemphasized. It should be kept in mind that the steroid content of 8 capsules of Sterazolidin will replace 10 mg. of prednisone (or its equivalent in related steroids).

Clinical experience indicates that most patients with rheumatoid arthritis may eventually be maintained on 3 to 6 capsules of Sterazolidin a day. It is advisable to administer the total daily requirement in divided doses.

Availability Sterazolidin: Light blue and orange capsules, in bottles of 100 and 1000.
(B)46-660-B

For complete details, please see full prescribing Information.

Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York 10502



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Woman's Auxiliary News

From the President's Desk

As the Christmas Season rapidly approaches with its myriad engagements and responsibilities, no doubt community activities including those of the Auxiliary will suffer somewhat because of a lack of time. However, it is important to point out that the various Auxiliary programs are stimulated the year around by the same spirit of sacrifice and devotion to good works that motivates us at Christmas time. What is more important than the promotion of good health for all our people? What greater gift could there be than that of good health?

There is no requirement that one devote a portion of her time to public service. When we give voluntarily of our time and effort to good works, we are making a gift to our fellow citizens. Such a gift of our time is the most unselfish of all gifts, and it is truly important if our nation is to endure.

The individual is of paramount importance, and each life has a purpose. In order to make a contribution to life and the world around us, it is important that we understand and value each other as we work together.

A very Merry Christmas and a Happy Holiday Season to all!

—Jeanne Coughlan (Mrs. D. W.)

Think Mental Health

Mental health can happen to anyone—rich or poor, young or old, educated or uneducated—but then, so can mental illness.

For instance, did you know that: 10 per cent of all school-age children have emotional problems requiring psychiatric help; that about 473,000 children under 18 years of age received some service in a psychiatric facility in the United States last year; and that suicide is the second leading cause of death among college students?

As doctors' wives we can help preserve or restore the mental health of Iowans by using and sharing the materials we have. Information has been mailed to the Mental Health chairmen in the organized counties and to the district counselors. If you desire more information, please write your Iowa Mental Health chairman, Mrs. M. D. Hayden, 1125 West Willow Street, Cherokee, 51012.

Safety in the Toy Shop

"Make 'safety first' your shopping motto when you head for the toy counter this holiday season," says Frankie Schwenk, extension home management specialist at Iowa State University.

Toys should be fun and a part of a child's play. But many toys have been found to be lethal objects. That's why Congress is now considering the Toy Safety Act of 1969—to take unsafe toys off the market.

Sometimes a toy may be safe enough if it's given only to a child who is old enough to manage it. But many times it's the fault of the loving adult that he ends up buying a toy that's too "old" for the child to whom he intended giving it.

So keep the child's age in mind. Remember, the tiny child puts most things right into his mouth. So watch for safeguard labeling that crayons and paint or dye on toys are "non-toxic." Toys, too, for this age of child should be large enough so that they can't be swallowed.

This goes for toy "parts" as well—no button eyes that can be pulled off or other tempting, harmful trim.

Electricity is not for the pre-school set, either. If you just must have a motor-driven toy for your young charge, look for battery-driven ones until he's at least 7.

Cooking equipment has been put on the market for tiny girls that have ovens that reach temperatures as high as 660 degrees—a dangerous temperature.

Breakage in toys causes many child injuries each year. Plastic, glass and metal toys that have exceptionally sharp edges when broken are poor choices for the young set. And you can definitely count on fairly rough treatment of toys by children of this active age.

So be a super sleuth in the toy department. Pick out only the toys that are "childproof." Help keep the unsafe toys off the market.

From Iowa Farm Bureau Spokesman

The I's Have It

It has been said that the greatest enemy of democracy is apathy, and that a wise man who does nothing is punished for his indifference by being governed by a foolish man who is willing to do something. Perhaps you feel confused and helpless regarding legislative matters, and are convinced that what you do or don't do really doesn't matter. This is not true. You *can* do something, for "I" has become the focal point of the National Legislation chairman's theme: **I**nformed, **I**nform, and **I**nvolved. Spelled out, they are:

$\mathbf{I}_1$ shall be **I**nformed.
$\mathbf{I}_2$ shall **I**nform others.
$\mathbf{I}_3$ shall become **I**nvolved.

$\mathbf{I}_1$. How can I become Informed?

Well, first, *read*. Beside your usual newspapers and magazines, read "In the Public Interest," your MD'S WIFE Direct Line Section, AMERICAN MEDICAL NEWS, legislative reports in your husband's journals, and IMPAC's publications. *Listen* critically to radio and TV news and specials, and starting in January, listen to WOI's daily broadcast of the State Legislature in session, starting at 9 a.m. each day. *Discuss* with your husband what you have heard and read, for he may be able to add a great deal to your understanding. *Ask* your Auxiliary to be sure to include legislative reports at each meeting.

$\mathbf{I}_2$. How can I Inform others?

As you participate in other organizations, or even in coffee and bridge groups, informally talk of current health legislation. Too often the press distorts as it reports, and lately the medical profession has become almost everybody's whipping boy. It is amazing how many friends are won when someone who understands a situation takes pains to explain it in a simple, factual way. To show others that we are really interested in *all people's* health, and not merely in preserving the doctor's annual income, would be a great service to us all. Among the most important people to "inform" are your legislators and their wives. If you do not already know them, *now* is a better time to get acquainted than is January when they will be spending much time at the capitol and at other meeting places.

$\mathbf{I}_3$. How can I be Involved?

If you really work at $\mathbf{I}_1$ and $\mathbf{I}_2$, you are well on your way to becoming **I**nvolved. As an *Individual*, you will probably be expressing your opinions in a variety of ways on many things—DDT, sex education in the schools, misuse of drugs, pollution, violence on TV, etc. You may be serving on some community committee, or writing letters concerning one of these or other problems. As an *Auxilian* you will be able to answer any requests you may get from your county or state medical society regarding a specific piece of legislation. Only at their request do you take any action on legislation *as an Auxiliary member*.

If you feel you do not have enough knowledge of political affairs, join IMPAC, read its pamphlets, and take part in the campaigning for candidates favorable to medicine. Your political party is always looking for volunteers, and it certainly has a woman's organization you can join. The League of Women Voters is for nonpartisan participation, and open to all. Eventually you may even decide to run for some office yourself!

To help you become better informed, we'll try to present "$\mathbf{I}_1$ Capsules on Health Legislation in the News" from time to time.

One of the first pieces of health legislation expected to reach the floor of the State Senate, when it reconvenes, is the Professional Corporation Bill, Senate File 554. Thanks to Trudy Beattie we have the following capsule. The bill should be considered non-controversial, for Iowa is one of only three or four states that haven't yet adopted such legislation.

ABOUT SENATE FILE 554— "THE IOWA PROFESSIONAL CORPORATION ACT"

"Explanation: This bill permits licensed practitioners to practice certain professions through a professional corporation. All incorporators, shareholders, directors, and significant officers must be licensed in Iowa or admitted to practice the profession which the corporation is to practice. This bill does not affect a professional person's liability to clients or his duties as to privileged communications, and as to the ethical standards of his profession. Persons practicing through a professional corporation remain subject to state laws and state regulatory boards.

"This bill would be a step in the direction of keeping more of our young, Iowa-trained physicians in Iowa and attracting others to move to our state. My own clinic group, for example, needs to add three physicians. Although we are proud of the exceptional facilities we have here in Creston, when it comes to offering the best deal—*we cannot yet compete with states that have already instituted a similar corporation act for professional men.* One young Iowa University graduate told us frankly that though he liked the set-up at our clinic, he had decided to join the staff of a Wisconsin group, 'Because they have a good retirement plan.'

"No one can deny the interest and dedication Iowa has always shown in providing excellent education for Iowa youngsters, but this bill might help us keep more of the talented minds that we've helped educate—right here in Iowa. We *need* them!—John L. Beattie, M.D."

Next month: SF 91 Chiropractic Bill.

—BETTY SCHUTTER (MRS. J. M.)
Legislation Chairman

Around the Hawkeye State

Black Hawk County

More than $1,000 worth of equipment was presented to the Black Hawk County Health Center this past fall by the Black Hawk County Auxiliary. Purchases of sound and slide projectors, a projector table, a polaroid camera and transistor radios were made possible by the proceeds from the 1968 Medical Ball.

Mrs. John Napier, of Cedar Falls, president at the time of the allocation of funds, and Mrs. A. M. Dolan, of Evansdale, recently made the presentation to the Center administrator and director of adult care.

Boone County

The Boone County Medical Auxiliary entertained all Boone County high school juniors and seniors who were interested in health careers at a tea, October 23, at the Imperial Inn. The tea has been an annual event for 20 years, and is a means by which Auxiliary members can become acquainted with such students and provide them encouragement and information about health careers.

Mrs. Ralph L. Wicks, the president, extended a welcome, and Mrs. Gerald H. Sutton, the program chairman, and Mrs. Wayne Rouse presented an interesting health-careers film. Following that section of the program, the students divided into various interest groups for informal discussions with specialists in the various health-career fields.

Guests who were present to talk with the students about careers in the health field were school nurses, counselors, psychologists, a speech therapist, an x-ray technician, a laboratory technician, a dietitian, and a physical therapist, all from Boone County.

Mrs. Wicks presided at the coffee service and Mrs. Frank Creamer served punch at the beautifully appointed tea table featuring autumn colors. Mrs. Donald L. Cross and Mrs. John Herman were co-chairmen of arrangements, and they were assisted on assigned committees by all other members of the Boone County Auxiliary.

Buchanan County

The Buchanan County Auxiliary held its October meeting at Hotel Pinicon, in Independence. Plans for future projects were discussed, including a health-career tea for high school students which was to be held in November. Mrs. Chester McClure was placed in charge of this project.

Plans were also discussed for a Christmas Party at the County Home.

Following the business meeting, the Auxiliary was invited to join the members of the County Medical Society to hear an address by Dr. Craig Ellyson, of Waterloo.

Cerro Gordo

Cerro Gordo County Medical Auxiliary, with the approval of the County Medical Society and in cooperation with Memorial and Mercy Hospitals, sponsored a Health Careers Day on November 8 at Mason City. High school students from throughout northern Iowa were invited to the program. Chairmen for the event were Mrs. Rodger B. Smith, Mrs. Robert Powell and Mrs. John Brinkman.

The students met at 9:00 a.m. at Mercy Hospital for an orientation session, and a showing of the film entitled "Horizons Unlimited" followed. The next item on their full schedule was a tour of both hospitals. Following lunch, the group viewed a film depicting services available at Mercy Hospital.

During the afternoon session all of the students had opportunities to talk with at least two community-resource persons. Professional people available for the discussions included nurses, doctors, laboratory and x-ray technicians, social workers, clinical psychologists, veterinarians and physical therapists.

Polk

The results of the Iowa Easter Seal Society's Homebound Handcraft Sale, annually sponsored by the Medical Auxiliary of Polk County, were most gratifying. The net receipts totaled $1,350.25. The sale was held October 6 through 11 in the foyer of Younkers' Tea Room. The full sale price in each instance went to the person who made the article.

Our sincere appreciation to Mrs. Joseph Song, chairman, Mrs. Alexander Matthews, co-chairman, and to all the other Auxiliary members who gave of their time and efforts in making this very worthwhile project a success.

Members of the Polk County Medical Society have been solicited by the Woman's Auxiliary to purchase the "Holiday Greeting Card." The sale of these cards, beautifully designed and bearing the names of all who purchase them, is the main money making project of the Auxiliary this year. Proceeds are allocated to organizations providing for the advancement of medicine and health education. The cards are addressed, stamped and mailed by Auxiliary members to all members of the Polk County Medical Society.

WOMAN'S AUXILIARY TO THE IOWA MEDICAL SOCIETY

President—Mrs. D. W. Coughlan, 1435 Park Avenue, Des Moines 50315
President-Elect—Mrs. L. H. Prewitt, 33 Birchwood Hills, Ottumwa 52501
Recording Secretary—Mrs. O. A. Elliott, 4010 Welker Avenue, Des Moines 50312
Treasurer—Mrs. J. F. Veverka, Box 324, Prairie City 50228
Editor of THE NEWS—Mrs. D. A. Mater, 302 S. 4th Street, Knoxville 50138
Assistant Editor—Mrs. R. J. Foley, 1025-16th Street, West Des Moines 50265



Personals



Dr. John Dickinson, formerly superintendent of the Iowa Security Medical Facility at Oakdale, has been appointed medical director of the Mid-Eastern Iowa Mental Health Center which is opening in Iowa City on December 1 and will serve residents of Johnson and Cedar Counties. A branch office will be located in Tipton. Washington and Iowa Counties are not participating in the program at this time, but provision is made for them to join later. The center will provide outpatient psychotherapy, play therapy for children, aftercare for patients released from mental hospitals, marital counseling, and consultation for schools, physicians, clergy and other professional people.

Fairfield physicians took part in a one-day conference on the diagnosis and treatment of heart disease, there, on October 16. **Drs. Donald Warkentin** and **Ernest Theilen,** of the U. of I. Department of Internal Medicine, were the instructors. They have conducted similar sessions for physicians at University Hospitals, Iowa City, but the Fairfield session was the first to be presented in an outlying community. It stressed new concepts in intensive care, and they will be implemented at the Fairfield hospital shortly.

Dr. Lewis E. January was one of three physicians who received the 1969 Gold Heart Award of the American Heart Association on November 16, in Dallas. He is a recent past-president of the AHA, and served for 10 years on its board of directors. He directed a study of Iowa farmers with heart disease to demonstrate the principles of work-simplification for cardiac patients. His citation said the award was presented to him "for distinguished service in advancing AHA programs."

Dr. Jed Paul, a Creston radiologist, addressed the Auxiliary of the Greater Community Hospital, there, on October 13. His subject was the causes and treatment of cancer.

Dr. Winston C. Baltzell, of Charles City, is one of a group of seven Iowa physicians and dentists who left on October 10 to work for two weeks among the Indians in the mountains of the Mexican state of Chihauahua. The sponsoring organization was Mission Medica Independentia, of Tucson, Arizona.

At 10:30 a.m. on Friday, October 10, fire broke out in the building that houses the medical offices of **Drs. R. E. Cooper, Robert Kemp** and **John Rankin,** and the dental office of **Dr. N. J. Daskalos,** and the living quarters of Dr. Cooper and Dr. and Mrs. Rankin, in Keokuk. The blaze is said to have started in Dr. Cooper's apartment after the contents of an ashtray were emptied into a plastic wastebasket. The blaze damaged the roof considerably, but the interior was harmed principally by the water used in fighting it.

In a Mason City court on October 16, **Dr. John K. MacGregor** was not permitted to report the results of a blood-alcohol test he had performed upon a man who presumably had caused a fatal automobile accident. The court ruled that a doctor-patient relationship had been established when Dr. MacGregor gave the driver emergency treatment following the crash. A manslaughter charge was consequently dropped.

Dr. Ralph Wicks, of Boone, an IMS trustee and one of the 23 Iowa physicians and their wives who toured Europe recently, listed his conclusions regarding medical care in the countries they visited, for publication in the October 16 issue of the BOONE NEWS-REPUBLICAN:

"1. Lack of personalization of medical care, very pronounced in all countries.

"2. Increase in the number of women physicians and decrease in the number of male physicians—all due to economics. Males go to higher-paying jobs.

"3. Increasing numbers of physicians leaving the countries.

"4. Lack of finances for physician facilities, both in maintenance and in production of new facilities. These findings were more marked in communistic than in socialistic countries.

"5. Physicians work shorter hours, usually 36 to 42 hours per week, and their pay is on a par with non-professional people's. This is more marked in communistic than in socialistic countries.

"6. The countries we visited are all looking to the U. S. as the medical mecca of the world.

"7. There is a black market in the delivery of medical care.

"8. Non-medical people have much to say about medical problems, and the politician participates in making medical decisions—even, in one instance, in who can have an abortion.

"9. There is little evidence of recognition, either financially or otherwise, for having rendered a good service.

"10. There was definite evidence of loss of desire to create or maintain good facilities for medical care.

"11. A definite lack of Christianity throughout these countries."

Dr. Wicks also reported: "We had freedom to talk with doctors wherever we went behind the Iron Curtain, but only on medical matters. I noticed that they shied away from anything controversial, and wherever we went there was always a government guide."

Drs. Paul From, an internist, and **William deGravelles**, a physiatrist, who both practice in Des Moines, conducted a two-day stroke workshop for registered nurses at Mercy Hospital and Younker Rehabilitation Center, there, on October 16 and 17.

Dr. E. R. Gann moved into remodeled offices in Sigourney on October 6. His new quarters are across the town square from his old ones.

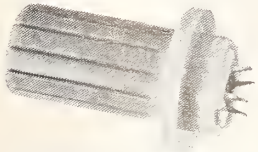
An organization of emergency units in Hamilton County was formed during a meeting at the County Hospital in Webster City on October 15. Thirty-four representatives of the various services were present. Known as the Hamilton County Rescue Association, the purpose of the group will be to provide training for the personnel of the agencies. **Dr. DeWayne Anderson,** of Stanhope, showed a film on emergency childbirth and answered questions on that subject. Future programs are to concern external cardiac massage, burns, etc.

Twenty faculty members holding the rank of assistant professor or higher began their first fall semester of teaching at the U. of I. College of Medicine this year. There are four Ph.D.'s among them. The M.D.'s are as follows. **Dr. John S. Thompson**, a professor of internal medicine and chief of medicine at the Iowa City VA Hospital, is a 1953 graduate of the University of Chicago Medical School, interned and took his residency training there. He is a diplomate of the American Board of Internal Medicine and a member of the National Medical Association as well as of the AMA, and before coming to Iowa he was an associate professor at his *alma mater*. **Dr. Robin D. Powell,** now an associate professor of internal medicine at the U. of I. and assistant chief of medicine at the VA Hospital, is a 1957 graduate of the University of Chicago Medical School and has been on the faculty there.

There are six new assistant professors of internal medicine. **Dr. Vincent S. Aoki** is a 1961 graduate of the Baylor University Medical School. He holds an M.S. degree in pharmacology from the U. of I., and he was a resident and a clinical pharmacology trainee there prior to 1966. Since that time he has been a research internist at the U. S. Army Research Institute of Environmental Medicine, in Natick, Massachusetts. **Dr. Stephen J. Curtis** is a 1963 graduate of the U. of I. College of Medicine who recently completed his residency at Peter Bent Brigham Hospital, Boston. **Dr. Ger-**

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ald F. DiBona is a 1964 graduate of Tufts University Medical School who took his residency training in Philadelphia. **Dr. Richard M. Freeman** took his M.D. and his specialty training at the medical school of Stanford University, in San Francisco, and has been in Iowa City for some time. Until recently he was assistant director of the Hemodialysis Center at the VA Hospital. **Dr. George J. Kaloyanides,** a 1962 graduate of Tufts, took his residency training at Brookdale and Maimonides Hospitals, in Brooklyn. **Dr. Allyn L. Mark,** a 1961 medical graduate of the U. of I., took his residency at the University of Pennsylvania and has been a cardiovascular research fellow at the U. of I. since 1957.

Dr. Donald Nibbelink, an assistant professor of neurology, is a 1965 graduate of the U. of I. College of Medicine who took his internship at Boston City Hospital and his residency training at the U. of I. **Dr. Charles Krause,** an assistant professor of otolaryngology, took his M.D. degree in Iowa City in 1962, interned at Philadelphia General Hospital, and recently finished his residency at University Hospitals, Iowa City. **Dr. Sidney Schochet, Jr.,** an assistant professor of pathology, is a 1961 medical graduate of Tulane who has been in the employ of the Armed Forces Institute of Pathology, in Washington, D. C.

There are two new assistant professors of radiology. **Dr. Robert C. Brown** is a 1948 graduate of the medical school at Loyola University, Chicago, he was a flight surgeon in the Air Force for two years, and thereafter was a general practitioner in Mason City before moving to Iowa City. He completed his radiology residency there in 1968, and since then has been an instructor in radiology at the U. of I. **Dr. Rolf L. Schapiro** took his M.D. at Western Reserve University, Cleveland, and his residency at the University of Pennsylvania Hospitals, Philadelphia. The new assistant professor of surgery, **Dr. Kenneth J. Printen,** is a 1961 graduate of the medical school at Loyola University, Chicago, and took his residency training at Cook County Hospital. Since then he has been a clinical assistant in surgery at Loyola. Two new assistant professors of urology are **Dr. William Bonney,** who had his basic medical training at UCLA, and took his residency there and in Boston. He heads the U. of I. kidney transplant team and is chief of urology at the VA Hospital. **Dr. Charles E. Hawtrey,** a 1961 graduate of the U. of I. College of Medicine, completed his residency there in 1967. During the past two years he has been chief of urology at the U. S. Naval Hospital in Beaufort, South Carolina.

Dr. John H. Sunderbruch, of Davenport, president-elect of the IMS, was another of the 23 Iowa physicians who, with their wives, recently returned from a trip through eastern Europe. Besides Brussels and Stockholm, they visited Leningrad, Moscow, Warsaw, Prague and West Berlin. "In one area in Russia," he told a reporter for the DAVENPORT DEMOCRAT, "there is only one doctor serving 3,800 persons during the day, and one for 19,000 at night and over the weekend."

Dr. James F. Speers, state health commissioner for the past 17 months, has resigned, effective at the end of the calendar year, to take the directorship of the Douglas County Health Department, in Omaha. He headed the Des Moines-Polk County Health Department from 1957 to 1965, and was director of community health services in the State Health Department from then until he was appointed commissioner.

The guest speaker at the October 23 meeting of the Central Division, Iowa Heart Association, at the Holiday Inn, Ames, was **Dr. M. E. Korns,** an assistant professor of pathology at the U. of I. College of Medicine. His topic was "Present Status of Coronary Care Units and Coronary Care Nursing."

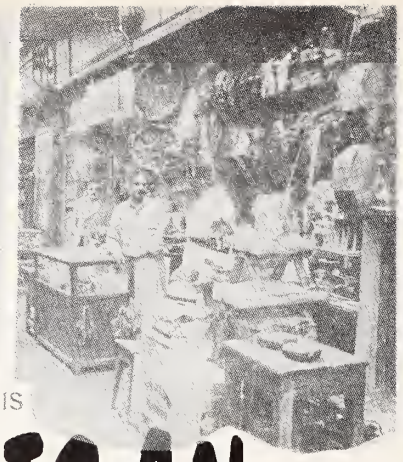
Dr. Dale Morgan, a Cedar Rapids anesthesiologist, related his experiences aboard *S.S. Hope* while the ship was docked at Corinto, Nicaragua,



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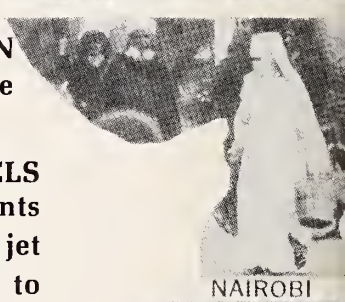
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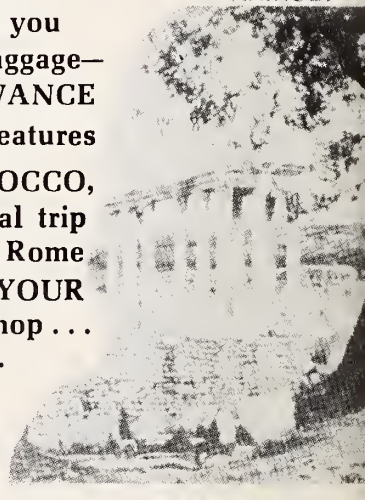


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to the Linn County Farm Bureau women's meeting in Marion on October 21.

Dr. James Pearson, of Dubuque, has been made a fellow of the American Academy of Orthopedic Surgeons.

Over radio station KMA Shenandoah, on October 15, **Dr. H. S. Frenkel**, of Clarinda, discussed coronary care. He is president of the Southwest Division, Iowa Heart Association.

On October 20-22, **Dr. Harold C. Bastron** represented the franchise holders of the Holiday Inn of Red Oak at the annual conference of the International Association of Holiday Inns, in Memphis. There are Holiday Inn franchises in all 50 states, in Canada, in Caribbean countries and in Europe.

Dr. Jack Fickel, of Red Oak, was recently elected Central Area vice-president of the National Association of State Boards of Education.

Dr. George Morrissey, of Davenport, was the principal speaker at a dinner on October 30 honoring the physicians who have practiced for many years at Mercy Hospital, there. The event was one of several marking the hundredth anniversary of the Hospital.

Dr. Dale Harding, of Eagle Grove, participated in a "Heart Symposium for Educators" held at Clear Lake on October 15. The program was attended by teachers and school nurses.

Dr. Howard B. Latourette, a professor of radiology at the U. of I. and **Dr. Fred J. Ansfield**, a professor of clinical oncology at the University of Wisconsin, were the featured speakers at a meeting of District 2 of the Iowa Nurses Association, held at the Ottumwa Coliseum on October 8. A new professional film, "Cancer in Children," was shown. The session was sponsored by the American Cancer Society, Iowa Division, Inc.

Stories published in the BURLINGTON HAWKEYE-GAZETTE indicate continued differences of opinion about the arrangement under which all members of the Des Moines County Medical Society serve as deputy medical examiners. **Dr. Curtis Nessa**, president of the physicians' organization, was quoted as saying that there are over 90 cases requiring attention from such an official each year, and that no one doctor can be expected to handle even a majority of them. He is said to have expressed the opinion that the rotating system of deputies appeared to be working well and has been well received by the police and sheriff departments. In another issue of the paper the dissatisfaction of some unnamed attorneys was reported. Those men were said to have had to call several physicians before finding one who was not too busy to make the requisite investigation.

Then, on October 29, it was announced that **Dr. Orville Dawson**, a Burlington anesthesiologist, had agreed to become the nominal county medical examiner, thus regularizing the arrangement which the state auditor had suggested did not conform to Iowa law. The paper indicated that Dr. Dawson will act as "general coordinator," but that deaths requiring medical study will continue being handled by the two dozen M.D.'s in the County, on a rotating basis.

Dr. Robert Soper, a professor of pediatric surgery at the U. of I., his high school student son John, and his brother, **Dr. Hunter A. Soper**, an Indianapolis internist, spent several weeks this past summer doing missionary work in the Congo. The Iowa City surgeon was one of only two physicians staffing a 200-bed hospital in Katanga. He performed 79 operations in 18 days, and they were



of all sorts, including ophthalmologic, urologic, orthopedic and otolaryngologic. That number of procedures would not be burdensome under better circumstances, he says, but a solitary scrub nurse constituted all of his help, and when the electricity failed he performed operations under light from a window. The young man had a harrowing experience during his stay, along with his uncle and other members of the family, at the same place earlier in the summer. While helping to build a church-school building, he and his companions were confronted by some armed guards who had confused the meanings of the English words *missionary* and *mercenary*.

Richard D. Brainerd, D.O., joined **S. M. Haughland, M.D.**, in general practice in Lake Mills, on October 13. Dr. Brainerd recently was separated from the U. S. Army. He formerly practiced in Luverne, and was accepted for the IMS/ISOPS Evaluation and Enrollment Program.

According to an item in the DALLAS CENTER TIMES for October 16, **Drs. Philip** and **Mary Couchman**, of Mt. Pleasant and **Dr. Reuben Widmer**, of Wayland, were invited to spend two weeks in Russia, together with a small group of other American doctors, as guests of the Soviet Union. They were to visit hospitals and medical centers in Moscow and Leningrad. The dates for the trip were not reported.

Dr. Richard Wilker, who recently returned to his practice in Creston following military service, spoke to the Rotary Club there, on October 20, regarding his work in Vietnam, and about the Vietnamese people with whom he had come into contact.

Dr. Albert P. McKee, a professor of microbiology at the U. of I. College of Medicine, recently received an award from the Ortho Pharmaceutical Corporation to be used to finance his search for the virus that causes hepatitis.

At the October 16 meeting of the Page County Medical Society, held at the Clarinda Country Club, **Dr. William Kuehn**, of Clarinda, reported some of the experiences that he and Mrs. Kuehn had recently, together with 22 other Iowa physicians and their wives, in Iron Curtain countries.

The Eye Bank Association of America recently chose **Dr. Alson E. Braley**, a former head of the U. of I. Department of Ophthalmology, as its president-elect. Established in 1961, the Association now has 62 member eye banks, including the Iowa Lions Eye Bank at University Hospitals. Dr. Braley was also presented a leather-bound copy of the September issue of the AMERICAN JOURNAL OF OPHTHALMOLOGY, which had been dedicated to him for his "many contributions to the field of ophthalmology." He recently entered the private practice of his specialty in Iowa City.

Dr. Thomas Largen, a general practitioner in Sidney and Hamburg, spoke to the PTA at Sidney on October 18 on "Adolescent Skin Care."

The newly-arrived M.D. in Grundy Center, **Dr. M. P. VandenBosch**, addressed junior and senior high school students and their parents there, on October 19, at the Bethany Presbyterian Church, on drugs being used illegally and their deleterious effects. He exhibited a motion picture "LSD: Insight or Insanity."

Dr. and Mrs. W. A. Castles, of Dallas Center, went to the recent annual meeting of the American Academy of General Practice, in Philadelphia, by automobile, and before returning home they made a side-trip to visit the reconstructed colonial village at Williamsburg, Virginia.

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You might also say that all interns aren't alike, either.



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WARNINGS: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

PRECAUTIONS: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and toler-

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ted). Though generally not recommended, if ombination therapy with other psychotropics eems indicated, carefully consider individual harmacologic effects, particularly in use of po-entiating drugs such as MAO inhibitors and henothiazines. Observe usual precautions in resence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimula-ion and acute rage) have been reported in psy-hiatric patients. Employ usual precautions in reatment of anxiety states with evidence of im-ending depression; suicidal tendencies may be resent and protective measures necessary. Vari-ble effects on blood coagulation have been eported very rarely in patients receiving the rug and oral anticoagulants; causal relation-hip has not been established clinically.

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At the district meeting of the American Academy of Obstetrics and Gynecology held on October 9 and 10 in Saskatoon, Saskatchewan, **Dr. David Wetrich,** a resident at University Hospitals, Iowa City, received a $350 first prize for presenting the most outstanding research paper. There were nine competitors.

Dr. G. W. Marmé, who recently left DeWitt intending to practice in Ottawa, Ontario, has joined the staff of Medical Associates, Clinton, according to the October 21 issue of the CLINTON HERALD.

At a recent regional meeting of the Iowa Hospital Association, in Iowa City, **Dr. A. J. Havlik,** of Tama, the IMS vice-president, participated in a panel discussion on hospital planning. Three points of view were presented—those of the hospital administrator, the hospital trustee and the attending physician.

Dr. George N. Bedell, a professor of internal medicine at the U. of I. College of Medicine and president of the Iowa Tuberculosis and Respiratory Disease Association, presided part of the time at a single-day conference "The Nurse and the School Child With Chest Conditions" in Iowa City on October 17. **Dr. Donald Zavala,** a resident physician at University Hospitals, spoke on "Tuberculosis and Its Significance, 1969" and on "Smoking and Chest Conditions." **Dr. Robert Durnin,** an assistant professor of pediatrics at the U. of I. College of Medicine, spoke on "The Cardiac Child in School."

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Following an October incident when an appendectomy had to be completed under the beams of flashlights held by nurses, at the Iowa State University Hospital (student health service), in Ames, the director, **Dr. Gail Proffitt,** was quoted in the October 28 DES MOINES TRIBUNE as having declared: "Surgeons won't work out here until we get standby power." The source of electricity is a generator on the ISU campus, and a switching failure cut off power for about half an hour. The patient suffered no ill effects.

The University is expanding its heating plant and incidentally, it is said, will set up a dual electrical system that will prevent a recurrence of the incident. The new installation is not to be finished in less than a year, however, and in the meantime no further major surgery will be performed there. "Most of the 100 operations at the center in a year," Dr. Profitt was quoted as saying, "are appendectomies and knees and things like that."

On November 1 the two Marshalltown hospitals, Evangelical and Mercy, merged to form an interdenominational community hospital. The move was necessary after the Chicago province of the Religious Sisters of Mercy announced inability to continue staffing the 100-bed Mercy Hospital. The chairman of the Board of Trustees for the combined institutions is **Dr. William Wessels,** a Marshalltown anesthesiologist.

Dr. K. R. Brown addressed the Leon Rotary Club, October 20, on "The Changing Scene in Medicine." He told of new methods of treatment, new drugs and vaccines, and oral medicines that have replaced injections, and pointed out that periods of hospitalization are much shorter than they used to be.

Two Cresco physicians have become active in the search for solutions to youth problems. **Dr. Dean Nierling** wrote a letter to the editor that appeared in the October 15 issue of the CRESCO TIMES-PLAIN DEALER, and subsequently called a meeting of civic leaders to discuss the situation that he had criticized. On the recommendation of **Dr. F. W. Klingle, Jr.,** the organizing group is to meet with governing and taxing bodies such as the city and town councils and school boards to seek their cooperation before starting a study designed to find out what should be done. Some students will be asked to join the group. The

community already has a youth center that is said to be used by 300 to 400 students each week, but its board members say they need additional funds, interest and support.

Mrs. Mary Louise Smith, whose husband, **Dr. Elmer M. Smith,** of Des Moines, is an IMS delegate to the AMA, was appointed by the State Department to represent the United States at a United Nations conference in Geneva, Switzerland, from November 3 to 14. Mrs. Smith is Republican national committeewoman for Iowa and a member of the executive committee of the Republican National Committee.

Dr. Wayne Johnson, of Dubuque, was presented the first Plainsman Award of the Boys' Clubs of America at ceremonies held at the Herbert Hoover Presidential Library, in West Branch on October 24. It is an award that is henceforth to be made annually to the person who has made the greatest contribution to the growth and development of Boys' Clubs in the Great Plains Region. Dr. Johnson currently is Iowa chairman for the organization.

The Community Mental Health Centers Association of Iowa elected new officers at a meeting held in Mt. Pleasant on October 22. **Dr. Thomas Murphy,** of Cedar Rapids, was named vice-president, and **Mrs. Bernard Goldman,** whose husband is a Davenport internist, was made treasurer.

Dr. Clair M. Kos, a private practitioner of otology in Iowa City, has been elected executive secretary-treasurer of the American Academy of Ophthalmology and Otolaryngology, which is said to be the second largest national surgical society, with more than 9,000 members. He expects to continue practicing his specialty, but he will commute frequently to Rochester, Minnesota, where the Academy has its headquarters.

The DES MOINES SUNDAY REGISTER for October 26 contained four men's observations regarding the inconsistency of the federal government's banning cyclamates and continuing to permit the sale of cigarettes, both of which its authorities consider harmful to health. **Dr. Lloyd J. Filer,** a professor of pediatrics at the U. of I., pointed out that the two come under the jurisdictions of different federal agencies. Cigarettes are in the alcohol-tobacco group, controlled by the Treasury Department, and cyclamates have been food additives and their use can be forbidden by the U. S. Food and Drug Administration, a branch of the Health, Education and Welfare Department. "Until we redraft a lot of our food laws we are going to continue to have a lot of problems in this area," Dr. Filer was quoted as saying.

Dr. Byron M. Merkel, a Des Moines otolaryngologist, is said to have answered, in part: "As far as cigarettes are concerned, the present lack of control seems to show that we as a people reserve our right to do as we please. It also shows that the least popular measures are regulatory measures on items that the public really wants—like alcohol in prohibition times."

Dr. Andrew C. Garvey, who formerly engaged in general practice at 2404 Towncrest Drive, Iowa City, is now acting chief of outpatient service at the Iowa City VA Hospital.

Dr. Horst G. Blume, of Sioux City, was elected president of the Midwest Neurosurgical Society during the organization's meeting in Sioux Falls on October 25. **Dr. K. Fathie,** of Cedar Rapids, was named secretary-treasurer.

Speakers at the first annual conference of District 1, Iowa Nurses Association, held at the Biltmore in Sioux City on November 6, included **Dr. Leonard H. Boggs,** a Sioux City obstetrician and gynecologist, and **Dr. Richard T. Satterfield,** the psychiatrist-director of the Siouxland Mental Health Center.

Dr. Glenn Blome, another of the 23 Iowa M.D.'s who, with their wives, recently visited medical facilities in several European countries, reported most fully on those in Sweden when he was interviewed by a reporter for his hometown newspaper, the OTTUMWA COURIER. He was quoted as saying that Sweden pays its medical costs out of general taxation, and "so far as I know, the Swedes pay the highest taxes in the world."

Practically all of the doctors are salaried employees of hospitals, but up until the present they have been allowed to carry on some private practice, he continued. But now "moonlighting" is to be stopped. "They estimate they will have to double the number of doctors in the next 10 years. They have more people involved in the health industry than in agriculture. The doctors have a rather strong union, essentially on the same basis as any non-professional group."

Dr. Kirk H. Strong, of Fairfield, participated in a program called "Operation Drug Alert" at Parsons College, there, on October 28. It was attended by 90 Kiwanis Club members from 11 southeast Iowa counties.

Dr. Kenneth E. Lister, an Ottumwa surgeon and chairman of the IMS Board of Trustees, has been appointed to the State Board of Medical Examiners by **Governor Robert D. Ray**. Dr. Lister is to complete the term of the late **Dr. E. P. Russell**, of Burlington, which expires on June 30, 1974.

A program for training alcoholism counselors directed by **Dr. James C. N. Brown** at the U. of I. Alcoholism Treatment Unit in Oakdale, has been adopted by the Office of Economic Opportunity as a model for similar programs elsewhere, it was announced on October 30. Twenty-five alcoholism counselors now at work in 13 states were trained at Oakdale, and there are now eight students enrolled in the one-year program.

Dr. Willard A. Krehl, coordinator of the Iowa Regional Medical Program, at the U. of I. College of Medicine, has been appointed to a 13-member panel that will help in planning a forthcoming White House Conference on Food, Nutrition and Health.

The Rotary Club of Jefferson arranged a community tribute to **Dr. Ben C. Hamilton**, which took place at the Greene County Hospital on November 16. Dr. Hamilton is continuing in active practice there after more than 60 years, and is a Life Member of the Iowa Medical Society.

The November 6 dinner meeting of the Johnson County Medical Society was held at the Oakdale Hospital, and the program consisted of an explanation by **Dr. Robert C. Hardin**, the U. of I. vice-president for medical affairs, and **Dr. A. R. Cuadrado**, the acting director of the tuberculosis medical unit, of the uses which the College of Medicine intends to make of the facilities. The General Assembly of Iowa placed the hospital under the control of the College of Medicine in 1965. In the future, tuberculosis patients from throughout the state will receive intensive, short-term treatment there, and the facilities will also be used for alcoholism treatment, a toxicology laboratory, and vocational rehabilitation programs.

Dr. Thomas Swartzwelder, formerly of Fayetteville, North Carolina, has joined the medical staff of the Knoxville VA Hospital. He and his wife have two children, a boy five years old and a girl 2½ years old.

Four faculty members of the U. of I. College of Medicine participated in panel discussions at the annual meeting of the American Heart Association, in Dallas on November 17 and 18. They are **Drs. L. E. January**, professor of internal medicine; **C. Adrian Hogben**, professor and head of physiology and biophysics; **W. A. Krehl**, director of the Iowa Regional Medical Program; and **John W. Eckstein**, professor of internal medicine.

James H. Cavanaugh, Ph.D., deputy assistant secretary for health and scientific affairs, in the federal HEW Department, addressed the November 13 meeting of the Linn County Medical Society at the Cedar Rapids Country Club. His topic was "Current Developments in the Federal Government as They Relate to Medicine." Dr. Cavanaugh received his master's and doctor's degrees at the University of Iowa.

Dr. James Bullard, a Decorah physician and mountain-climbing enthusiast, left Iowa on November 10 to join an expedition that planned to climb one of the major peaks in the Himalayas later that month. His group was to go around the world, stopping first in Japan, next in Thailand and finally in Napal.

Early in November **Dr. W. H. Owen**, of St. Ansgar, left for a second 60-day tour of duty with the AMA Volunteer Physicians for Vietnam program.

Dr. D. L. Ferguson, of Grinnell, **Dr. D. G. Bock**, of Fort Dodge, and **Shirley J. Sondrol, R.N.**, of Ames, were given special recognition at the recent meeting of the Central Division, Iowa Heart Association for their joint programs in cardiopulmonary resuscitation. "Through their efforts," their citation said, "dramatic gains have been made to fight heart disease, increase knowledge of congestive heart failure, and improve our ability to manage heart disease. Workshops have been held in every county in Central Division."

According to **H. Stanley Thompson, M.D.**, an assistant professor of ophthalmology at the U. of I. College of Medicine, corn-picking causes many farmers to make emergency visits to eye doctors, many of them false alarms. "At this time of year, people in the fields may discover that one of their pupils has suddenly dilated. Because jimson weed can often be found in Iowa corn fields, harvesters may get particles of it in their eyes, and jimson weed is rich in atropine, a drug used to dilate pupils of the eyes." He does not suggest that patients should be encouraged to disregard pupil dilatation, however, since it can be a symptom of a serious neurologic disorder.

Dr. Paul From, a Des Moines internist and chairman of the Capitol Stroke Project of the Iowa Heart Association, was a principal speaker at the

two-day workshop on Medical Problems of the Aged and Handicapped held at the Independence Mental Health Institute on October 23 and 24.

A disaster drill was conducted in Cherokee on November 4. A tornado was supposed to have occurred, damaging a downtown building in such a way that 26 of the injured were not immediately reachable. Whey they had been removed they were transported to the Mental Health Center, where they were "diagnosed" and "treated." Disaster drills, according to the CHEROKEE TIMES for November 7, are now a requirement for the maintenance of hospital accreditation.

Dr. Paul M. Kersten, a Fort Dodge psychiatrist wrote a newsy letter on November 2 to the IMS staff from Majorca, a Mediterranean island just a short distance from Barcelona, where he, his wife and their two younger children are taking what he described as a "seventh-inning stretch." They did some touring in western Europe before reaching there, and intend doing some more during the weeks when their youngsters are on vacation from the English school on the island. For shorter trips, on week-ends for example, they have acquired a fiberglass sailboat with a cabin large enough for four berths.

Nine research reports were presented by U. of I. medical faculty members and students, October 31 and November 1, at a meeting of the Midwestern Section of the American Federation for Clinical Research. The speakers were **John C. Hoak, M.D.,** an associate professor; **Philip G. Schmid, M.D.,** an assistant professor; **Francisco Falabella, M.D.,** a former fellow; **George J. Kaloyanides, M.D.,** an assistant professor; **Frank W. Kroetz, M.D.,** an associate professor; **Kevin J. Ivey, M.D.,** a fellow; **Richard L. DeGowin, M.D.,** an associate professor; **Henry E. Hamilton, M.D.,** a professor, all in the Department of Internal Medicine; and **Dennis M. Schuelke,** of Sioux Rapids, a sophomore medical student. Associated in the research were **John W. Eckstein, M.D.,** a professor; **John M. Kioschos, M.D.,** an assistant professor; **James A. Clifton, M.D.,** a professor; **Raymond F. Sheets, M.D.,** a professor; **Kenneth A. Hubel, M.D.,** an associate professor; **Allyn L. Mark, M.D.,** an assistant professor; and **Michael G. Wendling,** a research associate, all of the Department of Internal Medicine; **H. P. C. Hogenkamp, Ph.D.,** an associate professor of biochemistry; **Emory D. Warner, M.D.,** head of pathology; **Lawrence DenBesten, M.D.,** an associate professor of surgery and **Darryl Mozena,** of Dubuque, a sophomore, and **John Shierholz,** of Fort Dodge, a senior in the College of Medicine.

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Dr. Robert J. Barry has joined **Dr. W. C. Ziebell** in the practice of dermatology in Sioux City. Dr. Barry is a 1963 graduate of the U. of I. College of Medicine, he interned at Latter Day Saints Hospital, Salt Lake City; he was in the USPHS from 1964 to 1966, and he completed his residency at University Hospitals, Iowa City, this past July. He and Mrs. Barry have two children, five and six years of age.

Dr. William C. Keettel, head of obstetrics and gynecology at the University of Iowa, was a visiting professor and presented the annual Graffaynino Lecture on "Premature Ovarian Failure" at the LSU College of Medicine, in New Orleans, October 20-23.

Three members of the medical staff at Iowa Methodist Hospital, Des Moines, have been elected to the board of directors of the institution. They are **Drs. F. Eberle Thornton, John W. Green, Jr.,** and **Arthur H. Downing.**

Dr. Barry J. Anson, a research professor of otolaryngology and maxillofacial surgery at the U. of I., presented the 25th Wherry Memorial Lecture at the October meeting of the American Academy of Ophthalmology and Otolaryngology, in Chicago recently. His topic was "The Ear and the Eye in the COLLECTED WORKES of Ambroise Paré." He also presented a course on the developmental and adult anatomy of the ear and the temporal bone.

Dr. Norman K. Rinderknecht, of Des Moines, talked to the Des Moines Life, Accident and Health Association, November 11, on "Complications of Pregnancy."

Dr. William B. Bean, head of internal medicine at the U. of I., gave an address entitled "New Light on Walter Reed" at a meeting of the John Shaw Billings Medical History Society at the Indiana University Medical School on October 8. On November 5 he spoke on "The Education of Walter Reed" at the sesquicentennial of the University of Virginia.

Dr. Charles C. Edwards, who has been on the AMA staff and more recently the medical affairs vice-president of a management consultant firm, since he practiced surgery in Des Moines, has been appointed an assistant to **Dr. Roger O. Egeberg,** the assistant secretary of HEW for health and scientific affairs.

At an international symposium on treatment of cancer of the prostate held in Berlin, November 13 and 14, one of the 40 participants was **Dr. Rubin H. Flocks,** head of urology at the U. of I. College of Medicine. His topic was "The Use of Radioisotopes in the Management of Prostatic Cancer."

On October 21, **Dr. Theodore J. Michelfelder,** a Fort Dodge dermatologist, addressed the monthly meeting of the Wright County Medical Society, held in Dows. He gave a very concise and highly practical talk on skin lesions which mimic cancer.

Dr. William E. Connor, a professor of internal medicine and director of the Clinical Research Center at the U. of I., spoke on "Effects of Dietary Lipids and Sterols on the Sterol Balance" at the Second International Symposium on Atherosclerosis, in Chicago on November 3, and on November 6 he discussed "The Rationale and Pharmacologic Actions of Antilipidemic Agents" at a program sponsored by the American Therapeutic Society and the American Society of Internal Medicine in Scottsdale, Arizona.

The topic discussed at the November 19 meeting of the Polk County Medical Society was the use and abuse of drugs, and the speakers were representatives of the Des Moines Police Department and the Drake University College of Pharmacy. The December meeting has been advanced one week, to December 10. It will be held at the Fort Des Moines Hotel, and the subject for discussion will be the financing of health care—Medicare, Medicaid; usual, customary and reasonable fees; and the design and implementation of peer review.

Deaths

Dr. Melvin J. McVay, 86, a retired Lake City physician, died on October 23 at the Stewart Memorial Hospital, there, following several months of illness. Prior to 1967, he practiced for 55 years in Lake City, and was a Life Member of the Iowa Medical Society.

Dr. Howard O. Young, 88, who practiced at Anamosa from 1909 to 1912, in Martelle from 1912 to 1927, in Olin from 1927 to 1930, and in Marion from 1930 until his retirement in 1967, died at the Holy Family Hospital, in Estherville, on October 20. He was a Life Member of the Iowa Medical Society.

Dr. Ben T. Whitaker, 82, a Boone radiologist and a past president of the Iowa Medical Society, died at the Boone County Hospital on November 5 after a brief illness. At various times he had been a physician, surgeon and obstetrician, and he was one of the founders and a long-time member of the board of directors of Iowa Blue Shield.

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The Adolf Gundersen Medical Foundation of La Crosse, Wisconsin, announces the establishment of a fully accredited three-year residency training program in Internal Medicine at Lutheran Hospital, La Crosse, Wisconsin. The hospital staff consists of a 65-man multiple specialty group with offices in a connecting modern clinic building. Eighteen fully qualified internists serve as a nucleus of the teaching program. All staff men are full-time and salaried. This clinic-hospital complex serves as a referral center for a 100-mile radius. The hospital has a 375-bed facility. An intensive in-house training program is supported by weekly guest consultants. Stipend: $600 to $700 per month, plus housing and miscellaneous. Located in a progressive community with expanding university and private college. Population 50,000. Excellent school and recreation facilities. Applications being considered at all levels. Write: Edwin L. Overholt, M.D., Director, Medical Education and Research, Gundersen Clinic, Ltd., 1836 South Avenue, La Crosse, Wisconsin 54601.

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